

PROCEEDINGS
of the
WORLD ASSEMBLY
of the
World Council
for the Welfare of the Blind

August 7-16, 1974



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World Council

for the Welfare of the Blind

held at

São Paulo, Brazil

August 7-16, 1974

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WORLD COUNCIL FOR THE WELFARE OF THE BLIND

**ORGANISATION MONDIALE POUR LA PROMOTION
SOCIALE DES AVEUGLES**

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Certain of the papers included in these Proceedings were originally delivered in languages other than English and, while every care has been taken to ensure accuracy in translation, it is possible that some variations from the original structure and sense may have occurred. Furthermore, certain papers prepared in the English language were delivered by speakers not entirely familiar with that language. Some editing has therefore been required. Our apologies are submitted for any inaccuracies that may have resulted therefrom. Due to lack of space, it has been necessary also in some cases to abridge the addresses. We feel sure that the speakers will appreciate the need for these slight editorial changes.

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BACKGROUND OF THE CONFERENCE

A BRIEF HISTORY OF WCWB

The international aspect of blind welfare dates from 1931, when a conference, attended by delegates from more than 30 countries, was held in New York. That conference led to a desire for a permanent international organization, which would maintain liaison between all working in the field of blind welfare. But the 30's proved politically too unstable to favour its establishment. After the Second World War, the United States and the United Kingdom sought a resumption of international cooperation on the New York scale, and in spite of the difficulties of the post-war years, a conference on "The Place of the Blind in the Modern World" was held at Oxford in 1949, at which Europe and North America were represented. Once again, the desire for a permanent council was strongly expressed, particularly by the representatives of Scandinavia. An international committee was elected, charged with the task of exploring the possibilities for the creation of a world organization. In 1951, in Paris, a draft constitution for an international organization was adopted, bringing into being the World Council for the Welfare of the Blind. General Assemblies have been held

in 1954 in Paris	on "Various aspects of Blindness"
in 1959 in Rome	on "The Employment of the Blind"
in 1964 in New York	on "The Problems of the Blind in a Changing World"
in 1969 in New Delhi	on "The Blind in an Age of Science"

On July 31, 1974, there were 63 countries holding Representative Membership of the World Council for the Welfare of the Blind.

At the opening of this our Fifth Quinquennial Assembly, the composition of the Officers was as follows:

President: Dr. Charles Hedkvist.

Vice-Presidents: Mr. Robert Barnett, U.S.A., Dr. J. W. Cookey-Gam, Nigeria; Mr. Hideyuki Iwahashi, Japan; Mr. André Nicolle, France; Mr. Boris V. Zimin, U.S.S.R.

Treasurer: Mr. John C. Colligan, C.B.E.

Secretary General: Mrs. Marcelle Cowburn (consultative status).

The aims of WCWB are the welfare of the blind and the prevention of blindness. To this end the World Council provides the means of consultation between organizations of and for the blind, promotes the creation of national coordinating bodies, disseminates information, encourages the exchange of experience between associations of and for the blind. WCWB cooperates closely with the U.N., its specialized agencies and international organizations working in blind welfare.

WCWB has consultative status with the Economic and Social Council of the United Nations, Unesco and Unicef and official relations with

the World Health Organization. It is on the special list of the International Labour Office. It is also a member of the Council of World Organizations interested in the Handicapped (CWOIH).

The General Assembly, the principal deliberative organ of the WCWB, which includes all Honorary, Representative, International and Associate members, meets every five years to consider reports on progress and administration, to hear talks and exchange views. It also agrees on recommendations to governments and adopts resolutions laying down minimum standards. The General Assembly also elects the WCWB officers, the President, the Vice-Presidents, the Treasurer, and all other members of the Executive Committee, which governs the WCWB between the Assemblies. Out of the 33 members of the Executive Committee, no less than 25 of these represent the various regions of the world: 7 from Europe, 5 from North and Central America, 5 from South and East Asia, 3 from Africa, 2 from South America, 2 from the Middle East, and 1 from Oceania, plus two representatives of the international members.

The Chairmen of the Consultative Committees also have seats on the Executive and there are three seats "at large" held by individually elected members.

The World Council publishes a quarterly newsletter, designed to act as a link between its members. It has a wide circulation, and is also made available to many international governmental and non-governmental organizations, and other groups interested in our field. It aims at keeping members informed of all changes in the administration or leadership of organizations of and for the blind the world over, of new legislation concerning the blind, of special projects or achievements in work for the blind, of future plans, meetings, conferences, etc. It also reports on past conferences, and reviews books and publications of special interest to the blind. The newsletter is produced in English, French and Spanish.

As far as possible, all documentation emanating from the Council's offices is published in both English and French.

The last Executive Committee of the World Council, held in Moscow, USSR, in May 1972, decided to accept the kind invitation of the Government of Brazil for the venue of the Fifth World Assembly in São Paulo and chose as a theme for the debates: "Resources and Relationships for the Improvement of Services for the Blind."

All papers presented at the meeting will be found in the proceedings.

Paris, May 1975

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OPENING SESSION

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Dr. NEY BRAGA, MINISTER OF EDUCATION AND PUBLIC INSTRUCTION, representing His Excellency the President of the Republic.

Dr. PAULO GOMES ROMEO, SECRETARY OF EDUCATION of the State of São Paulo, representing His Excellency the Governor of the State of S.P.

D. ZILDA GAMBA NATEL, President of Honor of the Organizing Committee of the V General Assembly of the World Council for the Welfare of Blind.

D. ERNESTO DE PAULA, representing His Reverence D. Paulo Evaristo Arns, Cardinal Archbishop of the State of São Paulo.

Dr. HENRIQUE GAMBA, SECRETARY OF SOCIAL WELFARE of São Paulo's Municipality, representing His Excellency the Municipal Prefect of São Paulo.

Dr. GUALTER GODINHO, PRESIDENT OF THE MILITARY LAW COURT.

Dr. MARIO ROMEU DE LUCCA, SECRETARY FOR SOCIAL PROGRESS OF THE STATE OF SAO PAULO.

Dr. CARLOS DE ALBUQUERQUE, representing His Excellency the Secretary of Culture, Sports and Tourism of the State of São Paulo.

Dr. HENRIQUE BAIMA, SECRETARY OF EDUCATION AND CULTURE of the STATE OF PARA.

Dr. CAIO LUIZ DE CARVALHO, representing His Excellency the Secretary of Transport of the São Paulo State.

Dr. JOAO FERNANDO SOBRAL, representing His Excellency the Governor of the Ceará State.

Dr. MARIO TOBIAS FIGUEIRA DE MELLO, representing His Excellency the Governor of the Guanabara State.

Dr. ARTHUR AMARAL FILHO, representing the President of the Brazilian Ophthalmological Council.

Dr. ADWALDO CARDOSO BOTTO DE BARROS, President for the São Paulo Zone of the Company in charge of Mail and Telegraph.

Dr. PAULO ERNESTO TOLLE, Manager of the local Department of São Paulo's SENAI.

D. SARA COUTO CESAR, Director of the National Center for Special Education.

Dr. HORACIO KNEESE DE MELLO, Director of the Paulista Medical School.

Mr. THEOBALDO DE NIGRIS, President of the FIESP-CIESP, represented by Cap. Rubens de Paula.

INAUGURAL SESSION

Wednesday morning, August 7, 1974

Chairman: Dr. Ney Braga, Minister of Education and Public Instruction, representing His Excellency the President of the Republic of Brazil.

Dr. Braga: Having been entrusted with the honour of representing His Excellency the President of the Republic, I declare open the Fifth General Assembly of the World Council for the Welfare of the Blind.

After the National Anthem had been played the floor was given to Mrs. Dorina de Gouvêa Nowill, Chairman of the Local Arrangements Committee.

Welcome and greetings from the Local Arrangements Committee of the Fifth World Assembly by Mrs. Dorina de Gouvêa Nowill, President, Fundacao para o livro do cego no Brazil—His Excellency Dr. Braga, Honorable Minister of Education and Public Instruction in Brazil, representing during this Ceremony His Excellency the President of the Republic, who is also President of Honor of this Fifth General Assembly; His Excellency Dr. Paulo Gomes Romeo, Secretary of Education of the State of São Paulo, representing His Excellency the Governor of the State of São Paulo, Dr. LAUDO NATEL; Her Excellency Mrs. Maria Zilda Gamba Natel, President of Honor of the Organizing Committee of the V General Assembly of the World Council for the Welfare of the Blind; His Excellency Dr. Charles Hedkvist, President of the World Council for the Welfare of the Blind; His Excellency D. Ernesto de Paula, representing His Reverence D. Paulo Evaristo Arns, Cardinal Archbishop of São Paulo; His Excellency Dr. Henrique Gamba, Secretary of the Social Welfare of São Paulo's Municipality, representing His Excellency the Prefect of São Paulo, Mr. Miguel Colasuono; His Excellency Judge Gualter Godinho, President of the Military Law Court; His Excellency Dr. Mario Romeu de Lucca, Secretary for Social Progress of the São Paulo State; His Excellency Dr. Carlos de Albuquerque, representing Dr. Pedro de Magalhaes Padilha, Secretary of Culture, Sports and Touring of the State of São Paulo; His Excellency Dr. Henrique Baima, Secretary of Education and Culture of the State of Pará; His Excellency Dr. Paulo Salim Maluf, represented during this ceremony by Dr. Caio Luiz de Carvalho; His Excellency Dr. João Fernando Sobral, representing the Governor Cesar Cals, of the State of Ceará; His Excellency Dr. Mário Tobias Figueira de Melo, representing the Governor of the State of Guanabara: Dr. Chagas Freitas; His Excellency Dr. Arthur Amaral Filho, representing during this Ceremony His Excellency the President of the Brazilian Ophthalmological Council; His Excellency Dr. Adwaldo Cardoso Botto de Barros, President for the São Paulo Zone of the Mail and Telegraph Company; His Excellency Dr. Paulo

Ernesto Tolle, Manager of the local Department of São Paulo's SENAI; Her Excellency Dra. Sara Couto Cesar, Director of the National Center for Special Education; His Excellency Dr. Horácio Kneese de Mello, Director of the Paulista Medical School; His Excellency Dr. Theobaldo de Nigris, President of the Federation of Industries of the São Paulo State, represented during this Ceremony by Captain Rubens de Paula; ladies and gentlemen, participants of the Fifth General Assembly of the World Council for the Welfare of the Blind, Members of the Executive Committee of the World Council for the Welfare of the Blind, I was entrusted with the gratifying mission of welcoming all participants to the Fifth General Assembly.

To welcome means to hail. To welcome means to congratulate, to greet and sometimes to praise. With these greetings I also want to welcome all to this big Brazilian Homeland. If I were able to write poetry, I would have composed a beautiful sonnet. If I were able to write music, I would have created an unforgettable song. But even if I could know every expression of friendship and gentleness existing in Camoes sweet language, I would be unable to express with fidelity the tenderness and affection with which we receive you all, delegates and observers, in our beloved country.

Through your representatives on WCWB Executive Committee, in 1972, Brazil was elected as the site for this Fifth General Assembly. The invitation was ours, but the choice was yours. All Latin-America feels a special jubilation because of this preference, and all Americans hope to deserve this privilege of having you among us. You all came from faraway countries, from other continents, but you also came from all the corners of our country, students and studious, laymen and professionals, specialists and professors, you are all welcome and we want to pay you a well deserved homage.

We didn't spare our efforts to prepare this General Assembly. All possible assistance was mobilized so that our efficiency would never diminish. The Organizing Committee was always able to count on the most rapid, helpful and generous collaboration from federal, state and municipal Departments and from people in general.

Today, as we come to the end of the first part of the work of the Organizing Committee, we hope to be able to offer an atmosphere of tranquility so that we may decide over the destinies of the welfare and Rehabilitation of people with deficient vision.

History repeats itself, my friends, with the brilliant and beautiful page of the history of this land of São Paulo, the calling of the explorers, men who gave the best of themselves to claim the hinterland, conquest new frontiers and discover gold and precious stones.

Many did not come back, a few succeeded in accomplishing their dreams of glory and wealth, but all, yes all became immortal for their feat in bringing culture, knowledge and the benefits of civilization to the whole country, and for establishing communication with our dear south-American brothers.

A new expeditionary corps is being formed, once more the call at arms is being sounded from all the corners of the world; the soldiers of the new age of Communication and Electronics are here to enrich

once more, not only Brazil but the whole world with their knowledge, with what they can give to all those with a deficient vision.

Here we are to learn from your knowledge, to share your experiences and to learn from your achievements.

May these days be profitable, may we get better acquainted, so that we may serve better the ideal which has taken hold of us, and at the end may we, new expeditionary forces of this new world, be able to extend to all those with a deficient vision around the world, our message of social justice, love and peace.

Be welcome.

RESPONSE

By Dr. Charles Hedkvist, President World Council for the Welfare of the Blind.

Mr. Minister, Excellencies, Eminent members of the Board, distinguished participants, the foundation of work for the welfare of the Blind dates from 1931, when a conference attended by delegates from more than 30 countries, was held in New York. This led to a desire for a permanent international organization, which would maintain liaison between all working in the field of blind welfare and would promote international exchanges.

Since that date, big and small, more or less successful conferences relating to our field of interest have been held.

To the representatives of some 60 countries assembled in this hall I am happy to say that I firmly believe the World Conference we are inaugurating today, will be one of the most important International Meetings concerning the welfare of the Blind held so far.

In fact, it is a Meeting of people who know our problems and who are going to try to solve these problems. But above all, we have the privilege to have amongst us many experts from many countries and perhaps from the whole world.

The Fifth General Assembly of the World Council for the Welfare of the Blind will present new means, the latest discoveries and interesting Programmes for the Blind, incidentally these are the main aims of the World Council.

We are well aware of the huge financial effort which was necessary to make this General Assembly of the World Council of the Blind a reality.

I would like to express my admiration and gratitude to all those who gave the best of themselves to make possible this General Assembly; to Mrs. Natel, Mrs. Nowill and all their colleagues of the local Organizing Committee, to Mr. Eric T. Boulter and the other Members of the Programme Committee; to our Secretary-General Mrs. Marcelle Cowburn and her collaborators in the Paris offices; also to all those who helped to make a success of this General Assembly by preparing a great number of most interesting papers. I wish also to thank all the delegates, observers and guests for their attendance at this Assembly.

I wish also to express WCWB's warm and sincere gratitude to the Government of Brazil for inviting us to convene in this country and for the generous support of the General Assembly. I assure you that we are all greatly impressed by the generosity, friendliness and kindness we have met in Brazil.

We received many messages from people who would have liked to be with us today, but who could not come to this Assembly.

I will only read one of these messages, dated the 30th of July 1974, sent by Mrs. Queenie A. C. Captain, on behalf of the National Association for the Blind, Bombay.

"I am delighted to learn that the Fifth World Assembly of the World Council for the Welfare of the Blind is to be held in São Paulo, Brazil in August 1974 and that India will be represented by a delegation of able and experienced workers.

I have had the pleasure and privilege of being associated with the World Council for the Welfare of the Blind for over 10 years. I attended the Third World Assembly at Rome and the Fourth World Assembly in New Delhi and have experienced the joy of participating in the useful deliberations at these World Assemblies.

I am confident that the Fifth World Assembly at São Paulo will prove to be another most useful session and the resolutions adopted at the end of the Assembly will result in further development of the services for the blind throughout the world.

I send heartiest good wishes to all the Delegates and Observers gathered at São Paulo and wish the Assembly outstanding success."

This is only one of the numerous messages we received from people whose thoughts are with us and who give us an opportunity to pay homage to the Government and the people of Brazil.

INAUGURAL ADDRESS

by Ney Aminthas de Barros Braga, Minister of Education and Public Instruction—Your Excellencies, Distinguished guests, Members of the World Council, ladies and gentlemen:

On behalf of His Excellency the President of the Republic, I have the gratifying pleasure and great honor to install the FIFTH GENERAL ASSEMBLY OF THE WORLD COUNCIL FOR THE WELFARE OF THE BLIND; I am conscious of the responsibility bestowed on me both as Minister of Education and Public Instruction of my country, and as a citizen of the world community being aware as all those assembled here, whatever their beliefs or nationalities, of the problems of people with a deficient vision.

It is a great honor to welcome you and bring you an official support for this Assembly.

I will repeat what I once said to an extraordinary teacher of handicapped children, the Brazilian and internationally known, Helena Antipoff: "The rehabilitation of deficient people, of the injured does not only bring improvements to a few; it regenerates, it helps to save and recuperate the whole society, men as a whole, even populations."

Brazil welcomes you with open arms. Its Minister of Education and Public Instruction has no pretention to speak to specialists about technical problems. My intention is to listen to you with the utmost care so as to try to find appropriate solutions in the sector I am responsible for, with the collaboration of Public Authorities as well as private aid in order to give better living conditions to the Blind in his environment, and help him enjoy his inalienable right to be an active, important and integrated part of society.

I take this opportunity to confirm that the Government of this country will never fail to fulfill its duties concerning the visually handicapped and will always respect this pledge.

I would like to reiterate the pleasure of having you among us; and we are glad to see between so many distinguished names, our fellow countrywoman, Professor Dorina Gouvêa Nowill, President of the Committee which organized this congress.

During the exchanges I had with this eminent educator whom we can consider as a symbol of dedicated work, my admiration for her deepened. She is an inexhaustible fighter among those, who like yourselves, struggle in the area of education, rehabilitation and integration of the Blind.

The experiences and initiatives on behalf of the Blind, which have brought Mrs. Dorina de Gouvêa Nowill international renown; her leadership of the illustrious Brazilian Foundation for the Book of the Blind, her constant efforts look more like an apostolate due to the love that characterizes big human achievements.

Today she is sitting near those fighters of the Council which inaugurates this Assembly on our land.

I would now like to speak directly to those in whose name and for whose well being we are assembled: people with deficient vision.

It is my duty, and also an act of justice, to express the admiration and respect we all feel towards you.

It is your endurance that motivates and stimulates human intelligence to find individual and communitarian solutions to a problem which concerns you directly but the solution of which affects society as a whole.

It is through your courage and your example that the sighted find strength to face their own difficulties and stumblings, and that other handicapped people feel comforted because they know they are your brothers at heart.

Conscious of your difficulties and limitations, human inventiveness has been put to the test to find means of prevention, cure and to ensure that to the load of blindness is not added a worse one, indifference.

It is obvious that I cannot even summarize all the important achievements; I could not even quote the names of all those who although deprived of vision, illuminated the horizons and have been and still are guides to all of us.

It is fair, however, to name Louis Braille, a blind young man who was the first to open the windows of intellectual communication between men like him; to call up the immortal figure of Helen Keller, blind, deaf and mute who could see farther, hear better and speak clearer than billions of other beings; to mention also Father Anselmo Fracasso, who says he is happy *because he is blind*, as this enables him to see more profoundly the soul of those who need him; and Father Bertilo Schmidt who although blind represents light for many people; my countryman Professor Brasilio Starepravo, knocking down mountains for the Blind; our Dorina Nowill and so many others forming a blessed lineage along whom you can find abnegation and useful service to Humanity.

For all the other Blind of equal value whose name I didn't quote, I would use what is said about the Unknown Soldier who gave his life for his ideal: "God knows his name."

During the religious Ceremony of Passover for those with deficient Vision, held in Curitiba, nearly a month ago, innumerable television spectators witnessed with emotion the prayers of the Blind, asking God to free them from the only misfortune they could not bear: not to be seen or looked at by those who were blessed with the gift of vision!

May I convey to you the thanks of his Excellency the President Ernesto Geisel, for the honor you bestowed on him, by choosing him as the President of Honor of this illustrious Assembly. It will no doubt be a powerful encouragement to all men to *see* better the real problems of Man and increase our will to find solutions. As the Gospel says, the real Blind is the one who does not want to see.

This Assembly shows that all its participants, without any exception, *want to see!*

The best way for the Government to join with those who like you give their soul to such a noble cause is not through a formal thanking, but by participating also, with deeper understanding, more perseverance, to the fight against blindness. It is the engagement we take. It is the best way to tell you, every day from the depth of my soul: thank You.

GREETINGS

from His Excellency the Governor of São Paulo

by Dr. Paulo Gomes Romeo, Secretary of Education of the State of São Paulo.

His Excellency Minister Ney Aminthas de Barros Braga; representative of His Excellency the President of the Republic; His Excellency Dr. Charles Hedkvist, President of the World Council for the Welfare of the Blind; Her Excellency Mrs. Maria Zilda Gamba Natel, President of Honour of the Organizing Committee of this Congress; Her Excellency Mrs. Dorina de Gouvêa Nowill, President of the Organizing Committee of the Congress; other members of the board of Directors; Members of this Assembly.

His Excellency Governor Laudo Natel, who for reasons beyond his control could not be present today, asked his Secretary of Education to come in his place and bring to the participants of this Congress, his cordial greetings and his thanks for the honour bestowed on the State of São Paulo by choosing it as the site for this World Assembly.

The Government of the State of São Paulo has a special concern for the problems of the Blind, and through its Secretaries of Education and Health as well as its Secretary for Social Affairs, has sponsored a Campaign throughout the whole State for the prevention of Blindness and better vision for all our students. This campaign has been very successful and has resulted in the prevention of many cases of visual deficiency.

It is through Special Services and Assistance to the Blind that education has been brought to innumerable blind in this State. Because of these activities the Governor of the State can stand before this World Assembly and say that besides the sympathy he feels for them he has tried to create and develop services for the blind. In the name of His Excellency Governor Laudo Natel, and in the name of the Government of the State of São Paulo, we welcome you to our country.

Commemorative Stamp of the Fifth World Assembly

Engineer Adwaldo Cardoso Botto de Barros, President of the Brazilian Post and Telegraph Company, officially presented the special stamp issued on the opening of the Fifth World Assembly. The stamp bore the following inscription in Braille and Portuguese:

THE BLIND IS A PARTICIPANT CITIZEN

A special postmark bearing the name and dates of the Fifth General Assembly was then impressed on the stamp by the officials present.

MESSAGE RECEIVED FROM HIS EXCELLENCY

Mr. EMILIO MEDICI

Former President of the Republic of Brazil

Honoured by your invitation to attend the opening ceremony I wish to express my best wishes for a very successful Fifth General Assembly, and my deep admiration for those fighting for the cause of the blind.

Cordially,

Emilio Medici

OPENING BUSINESS SESSION

Chairman, Dr. Charles Hedkvist, President WCWB

THE PRESIDENT'S REPORT

on Activities of the World Council for the Welfare of the Blind, 1969-1974 by Charles Hedkvist.

The theme of this 5th General Assembly is "Resources and Relationships for the Improvement of Services for the Blind." However, we must in our work at this Assembly always bear in mind that 99 out of 100 persons are sighted, and that as a consequence of this fact practically all functions in society everywhere are formed to suit those who can see. This is something we must accept.

Another fundamental fact is that those who deal with the needs of the great majority generally have little knowledge of how to solve the problems of such a small minority as the blind. In consequence, the main tasks of organizations of the blind as well as of organizations for the blind may be expressed in the following points:

1. To draw the attention of the general public and the authorities to the problems of blindness.
2. To convince the general public and the authorities that the blind can play the same role in society as other citizens.
3. To show how the problems of blindness can be solved and to formulate priorities in the process of solving those problems.
4. To stimulate all concerned to tackle the problems connected with blindness in all fields of society.

This General Assembly meets exactly 25 years after the international conference for the blind in Oxford in 1949 where the first plans to establish WCWB were discussed. It is 20 years since the first General Assembly of WCWB convened in Paris. During these 20 years our Council has worked in accordance with the principles laid down during that first assembly. To my regret, time does not permit me to give you a summary of the work done by our Council in the past 20 years, but you will find details about the developments that have taken place during the period after the 4th General Assembly 1969 in the various reports which have been circulated prior to the Assembly here. I shall thus limit this report to a very broad survey.

In order to draw attention to the problems related to blindness, representatives of our World Council have taken part in a great number of international conferences dealing with social development, education, rehabilitation etc., and we can easily see that WCWB's participation has indeed influenced the resolutions and recommendations of those meetings. The very successful conferences arranged by our Regional Committees have served the same purpose.

The World Council enjoys official relations with Ecosoc, ILO, Unesco, Unicef and WHO. This has given us the opportunity for very close practical cooperation with those agencies.

With the object of creating an instrument for World Council action on the national level, the national delegations were requested in 1970 to nominate Heads of Delegations. I want to take this opportunity to express my appreciation and gratitude to those Heads of Delegations who have assisted the Council and have succeeded in securing the support of their national governments for a number of proposals and recommendations related to blindness. There should be no doubt that an organization with more than 60 member countries and including a large number of strong associations could be developed into an effective political instrument. But optimal results require the cooperation of *all* the Heads of Delegations.

It seems logical that prevention and cure of blindness should be given top priority in our work. The need for action in this field is even more acute in view of the alarming increase of blindness all over the world. Following negotiations with WCWB and thanks to very close cooperation with the RCSB, AFOB, the organization of the blind in Spain and a number of other non-governmental organizations, Unicef has sponsored a successful campaign against nutritional blindness. I am also happy to report that Unicef now seems to be prepared to take up the problems of the children which we have failed to save from blindness, and a conference for this purpose will probably be held towards the end of this year.

Further, the awareness of the alarming global increase of blindness has stimulated WHO to work out a program for a massive campaign against blindness all over the world. This General Assembly will give us the opportunity to discuss the program, but WCWB has already promised its fullest possible cooperation in this campaign.

During the last five years, Unesco has developed very close practical cooperation with WCWB. As a result of this collaboration, Unesco paid special attention during the International Book Year 1972 to the need for books for the blind, and last November our Council was invited to attend a conference with the object of revising the Florence Agreement of 1952 to facilitate importation of among other articles technical aids for the blind. I urge all of you to try and secure the support of your own government for the resolution which was adopted at that conference and which is meant to be laid before the next Unesco General Conference in October this year.

In 1972, WCWB carried out a survey on the training and employment situation of the blind in modern economic life in some industrial countries. This was done in collaboration with the Swedish Labour Market Board and ILO. The findings of this survey were considered by ILO to be of such interest that in January 1974 they established a documentation service in this field, called BLINDOC. A small expert conference will probably be held in the very near future at which time the content and routines of the new documentation program will be settled.

As the result of an initiative taken by the World Council, the UN Commission on Social Development decided in 1972 to undertake an investigation of the situation of the blind in the developing countries which would serve as a basis for a broad program for the blind. The report will be published shortly, and I expect that our Council and its affiliates will be asked to work with the UN Rehabilitation Unit to draw up a program of action.

To my mind, one of the most important initiatives of the World Council was the decision of the Executive Committee at the meeting in Moscow 1972 to set up an aid committee, intended to stimulate systematic programs for the blind in the developing countries. For further details, I refer to the report presented by the special Aid Committee. I can rightly say that the structure and work of the Aid Committee can serve as a model for international cooperation.

My report is only meant to indicate the wide field in which our Council is involved. For the details, I have to refer to a number of special reports. However, it would not be correct not to point at the serious problems which face our organization. The expectations which our affiliates as well as other organizations set on our Council are increasing, and we have to take full responsibility for the success or failure of the initiatives we have taken. I regret to have to say that I sometimes have the feeling that our ambitions do not always correspond to our capacity to carry them through.

There is no doubt that officials of the UN agencies are eager to do a good job for the blind within the limits of the resources at their disposal. But these resources are dependent on the readiness of the national governments to pay the bill. Consequently, it is of the greatest importance that the Heads of Delegations act when asked to secure their governments' support for proposals of interest to the blind. An involvement in our World Council should not be understood as merely an honour. It also means accepting a responsibility towards the blind of the world.

Another urgent task is to make the Constitution and the working routines of WCWB correspond to the requirements of the present time and situation. This General Assembly will have the chance to discuss proposals to that end.

Allow me to use this occasion to draw your attention to the necessity of securing the cooperation of the blind themselves in all programmes concerning the blind. One of WCWB's most important tasks should be to stimulate the creation of strong, influential and cooperative-minded associations of the blind in all the countries where such organizations do not already exist. However, I have met such understanding for this need in so many countries and within so many responsible organizations for the blind that I have the right to feel optimistic with regard to developments in this respect. Nonetheless, I strongly recommend initiatives by WCWB.

Finally, I shall have to touch on what might prove to be our most urgent and alarming problem, the financial situation of the World Council. I shall be quite frank with you. In my opinion, the situation can be described as follows: WCWB is just now at a critical turning

point. The expectations on our World Council by other organizations are steadily increasing. If we are able to meet them, WCWB has a real chance to gain decisive influence on the situation of the blind in all parts of the world. But in order to meet the needs, we have to reinforce our administrative and executive capacity, and this has to be done at a time when the monetary value of the membership fees is steadily decreasing. Without an increase of economic resources we cannot even keep up the present highly unsatisfactory level. I see only two alternatives here.

One alternative is to rely on the Regional Committees for all the work in the regions, on strong and responsible national organizations for work on a global scale in limited fields and to reduce the Council's own undertakings to an absolute minimum. That alternative may be the beginning of the end of our World Council.

The second alternative is to increase the income of WCWB by some \$25,000 a year, and still we should have to depend on the generosity of national organizations for the running costs of, for example, the President's Office and the administration of the Standing Committees.

I judge it to be impossible to raise the membership fees to such a degree, as that would mean the loss of members, resulting in turn in a serious weakening of the World Council. It is true that the majority of the member countries may be considered as non-affluent countries. On the other hand, WCWB has as members also the richest countries in the world, and even if the financial situation of our member organizations as a rule is less prosperous than that of their respective countries, some extra contributions to our Council would probably be marginal to the economy of those organizations.

This General Assembly has to decide one way or the other, but I am fully convinced that if the World Council for the Welfare of the Blind is given the necessary resources to develop its activities, you will at the time of the next General Assembly find that it has been worth-while.

ELECTION OF COMMITTEES

Following the recommendations of the Chairman, Dr. Charles Hedkvist, the under-mentioned committees were unanimously elected.

Credentials and Proxies Committee:

Dr. Claude Chambet, Chairman
Mr. M. Robert Barnett
Dr. James W. Cookey-Gam

Nominations Committee:

Mr. Eric T. Boulter, Chairman
Capt. H. J. M. Desai
Dr. H. Pielasch
Sheik M. Al-Ghanim
Mr. A. Husveg
Mr. H. Pradilla-Cobos

Resolutions Committee:

Mr. B. Lindqvist, Chairman
Mr. A. Chibututu
Dr. R. Vyas
Mr. E. W. Christiansen
Mr. H. Iwahashi
Mrs. E. de Stahl
Mr. G. Sandoval
Mr. I. Iliev

KEYNOTE ADDRESS

RESOURCES AND RELATIONSHIPS IN WORK WITH AND FOR THE BLIND

by Eric T. Boulter

Past President, World Council for the Welfare of the Blind,
Director-General, Royal National Institute for the Blind, London,
Chairman of the Assembly Programme Committee.

The date was Monday, 8th August, 1949—25 years ago tomorrow. The place was Merton College, Oxford, England. The occasion was the International Conference of Workers for the Blind. It was then and there that the discussions occurred which led directly to the creation of the World Council for the Welfare of the Blind. The Oxford Conference was the first international gathering of representatives of organisations of and for the blind and experts on blindness following the conclusion of World War II, and its objectives at the outset were threefold: firstly, to accelerate the reconstruction of many of the essential services for blind children and adults which had been shattered on the European Continent during the savage years of war; secondly, to prepare and adopt a series of recommendations covering the principal areas of service to blind people which, taken together, would constitute a minimum programme to be offered by governmental or voluntary bodies in any country; thirdly, to gain the active interest and support of the United Nations and the appropriate specialised agencies towards the acceptance of responsibility by governments for the introduction and progressive improvement of blind welfare services.

Representatives of only 17 countries of Europe and North America attended the Oxford Conference but it is my opinion that it was one of the most outstandingly successful gatherings ever held in our field of common endeavour. For it cannot be doubted that it fully achieved the three purposes for which it had been convened. It is remarkable in the extreme, therefore, that the Conference which had accomplished all it set out to do should be remembered principally for action which it took outside its immediate terms of reference and on a subject for which no provision had been made in its programme. As delegates began to gather immediately prior to the opening of the Conference, it became apparent that in country after country there existed firm hopes that the Oxford experiment would be crowned with success and that it would be the precursor to more frequent meetings between representatives of organizations of and for the blind from a growing number of countries.

As a result of this widespread and spontaneous expression of desire, the Steering Committee at one of its early meetings decided to convene an extra evening session for the specific purpose of discussing any proposals which delegations might wish to advance and those of us who

were there still recall vividly the infectious enthusiasm with which the discussions at that special session were charged. The final outcome was unanimous adoption of a resolution for the creation of an international committee with full power to study the situation and to take all necessary measures to bring into being a permanent world organization. Among the great assemblage of people from all corners of the earth gathered here in São Paulo, there is a small handful of us who were privileged to play some part in the birth, or perhaps more properly, the conception, of the world Council for the Welfare of the Blind—the vibrant international body with which we are all so proud to be associated. Eero Häkkinen was a delegate of Finland, and with that rather unique duplication of national responsibility which has caused confusion to so many people, I then served as a delegate of the United States. Our President, Charles Hedkvist, was an observer from Sweden, while John Colligan and John Wilson attended some of the sessions as official representatives of the National Institute for the Blind which had jointly sponsored the Conference with the American Foundation for Overseas Blind.

It is interesting after a quarter of a century to recall some of the tasks that were envisaged for the World Council by that group at Oxford which helped to bring the new organization into being. It was felt that it should serve as a permanent means of consultation between organizations of and for the blind of the whole world. It was hoped that it could provide assistance in a variety of practical ways to countries which were facing serious difficulties in the provision of adequate services for their blind people. It was hoped that it could create a bureau for the exchange of information, particularly for the development of more effective aids and appliances to enable the blind to overcome their problems. It was felt that it should serve as a means of enabling governmental and non-governmental agencies in all countries to keep abreast of important developments in the field of blind welfare wherever such developments might occur, and as a forum for the constant exchange of ideas. The publication of a regular bulletin was envisaged. It was considered to be an essential responsibility of the new organization to establish a close partnership with the United Nations and its specialised agencies for the progressive improvement throughout the world of services for blind people.

From the interesting and informative report which we have received from our President, it can be seen how much progress has been made already towards the achievement of the objectives detailed by our Oxford founders who also instructed the new organization that it should develop a programme which could serve as a charter of freedom and social liberation for blind people wherever they might be.

As we pass this twenty-fifth milestone, I feel that we may be forgiven for indulging in a little nostalgia, so I make no apology for having recalled in these last few minutes some of the circumstances which surrounded the creation of our Council, but I would be remiss in so doing were I not to make special mention of that great triumvirate of Dr. R. B. Irwin, Mr. W. McG. Eagar and Monsieur Georges L. Raverat—to them and to the organizations which they headed must go the deep

gratitude of all of us for calling the Conference in Oxford, for guiding the plans that led to the constitution of the World Council, and for nurturing that young seedling which has burst into full flower at this great Assembly here in São Paulo, and I must add one further name, that of Colonel E. A. Baker, whose deep wisdom and leadership qualities were so crucial during the organization's formative years.

But enough of looking back. Since its inception, the WCWB has always been a forward-looking organization, and I am confident that such will always be the case. As we meet here with the greatest gathering of participants ever recorded for an international conference on blind welfare—national delegates, government representatives, officials of the United Nations and its family of specialised agencies, associate members, observers and honoured guests—we are confronted with new and ever-growing opportunities for more effective service. The accelerating pace of scientific, technological and social development is throwing up by-products which, if we are alert and vigilant, we may seize upon, adapt where necessary, and utilise to the advantage of visually handicapped people everywhere. The resources available to us are endless, but if our efforts to help blind people in the world around to achieve true fulfilment are to be successful, we must not only use all these resources, we must also get all the relevant relationships into proper perspective. It was the recognition of the critical nature of these two elements, resources and relationships, which prompted your Executive Committee to choose them as the theme of this quinquennial assembly, and it has been the purpose of your Programme Committee to plan a series of sessions that will enable all of us fully to explore these all-important topics.

I now wish, gratefully, to express my indebtedness to all those who served with me on the Programme Committee, to all those who so kindly accepted our invitation to prepare and submit papers for our consideration, to all who will serve as chairmen of sessions, and to the Council's Secretariat for translating and circulating so many documents in advance. We believe that the subject matter of many of the sessions will be provocative; undoubtedly controversial views will be expressed and at times the discussions may become heated. Opinions as to the most appropriate tactics to use for the more rapid achievement of some of our objectives may sharply diverge. Differences of approach stemming from the varied economic, social and cultural patterns from which we are drawn may emerge, yet through it all the end to which we constantly strive will be ever before us. From the distillation of all our ideas will surely come a pattern of future activity for our countries, our organizations, and for us all, each in his appointed area of responsibility.

At the conclusion of our labours I am confident that we will have achieved a higher plateau in our constant ascent towards the summit of the full emancipation of visually handicapped people in every part of the world.

Among the most important matters which engage our attention this week will be the pressing problem of the ever-mounting incidence of unnecessary blindness throughout the world. None of us, blind or

sighted, professional worker or volunteer, cannot but be deeply affected by the knowledge that the majority of those blind people whom we serve need never have become blind. Had there existed in all our countries adequate medical facilities, or had appropriate standards of sanitation and hygiene been available universally, most of the blind people on our registers would never have had their names inscribed thereon. There looms before us the terrible prospect that with the continued growth of the world population, and as a result of malnutrition and epidemics, the number of blind people in the world will grow to unmanageable proportions, to say nothing of the magnitude of the human misery involved.

We all recognise that a massive attack must be made on this problem and we shall learn that exciting new plans in this direction are being developed, but we must recognise too that however brilliantly such plans may be drawn, however competent and dedicated may be those who are destined to administer them, little will be achieved unless each of us brings to the task the full weight of his organization and his personal service. Unless every possible resource is tapped, and every relationship utilised completely, our opportunity may be lost. I prophesy that in years to come, men will point to this Assembly in São Paulo as the historic occasion when the corner was turned in the age-old battle against unnecessary blindness.

As we proceed with the work of our professional and business sessions, we shall share the wisdom, the far-sightedness, the sometimes almost supernatural knowledge of the inventor, the scientist, the technician. We shall learn where we now stand and what awaits us in the future in the development of reading machines, which can be put to practical use by masses of blind people. We shall continue our journey along the paths which we hope will lead to the availability of truly effective guidance devices and environmental sensors, and to the full scale harnessing of the computer for the infinite benefit of blind people.

Appropriately, as we approach the observance in 1975 of the 150th anniversary of the invention of the braille system, we shall explore new methods to achieve vastly increased and much more rapid braille production. Similarly, we shall study the possibility of developing improved recording methods and systems, so that easier access to an ever-expanding range of recorded titles may be offered to blind people, particularly the elderly and students who rely so heavily on this reading medium. As we do these things, we may move several steps closer to achieving that level of standardisation as will permit far greater international interchange of books, equipment, materials and people.

Our work will range over many topics—rehabilitation, training, employment, the very special needs of the deaf-blind and of others handicapped by disability and by advancing age in addition to visual problems, the better utilisation of residual vision, and steps for taking advantage of all community resources for the benefit of the blind. These and many other topics will come under our scrutiny. We shall learn from each other, we shall help each other and in the companionship of the meeting rooms we shall strengthen our resolve to move rapidly towards new heights of service in our individual areas of responsibility

and in our international partnership. In company with the distinguished representatives of the United Nations, we shall hammer out new approaches to mutual problems so that our joint effort may be brought to bear on the search for solutions.

The great strength of the World Council for the Welfare of the Blind has always been its ability to draw on the wisdom and experience of all the facets of work with, for and by blind people. Representatives of organizations of and for the blind, of intergovernmental and national government bodies, professional workers and volunteers, all have contributed to the strength of our organization. Once more, at this Assembly, each will play an integral and important part. The way ahead will not be easy but no insuperable problems confront us. The climate of governmental and public opinion concerning the prevention of blindness and the provision of services for the visually handicapped is moving inexorably in our favour. Greater opportunities for practical service now exist than at any time in the history of the world. The opportunity is ours. Blind people around the world expect us to grasp the opportunity. We must not fail them.

SECOND BUSINESS SESSION

REPORT ON WCWB MEMBERSHIP

Wednesday afternoon, August 7, 1974

Chairman: Dr. Charles Hedkvist, President WCWB

The Secretary General reported that since the last General Assembly the Council had lost two countries: Pakistan and Panama, by a decision of the Executive committee in Moscow, 1972, as they were several years in arrears with their subscriptions. Three more countries (Korea, Ethiopia, Indonesia) had been removed from the Membership List for the same reason, by a decision of the Executive Committee meeting, held in São Paulo on the previous day. In addition, Kenya had withdrawn for financial reasons.

At the opening of the Assembly there were 60 member countries—as compared with 53 at the time of the New Delhi Assembly—12 new ones having joined the World Council. These are: Iran, Cyprus, Syria, Rumania, Nepal, Mali, Bangladesh, Ivory Coast, Zambia, Libya, Senegal and Malta.

With regard to Associate Membership, a number of Representative Members made great efforts to recruit new associates, in accordance with the recommendation adopted in Belgrade that each country ought to set itself a target of recruiting at least as many associate members as the number of its national delegations. The chairmen of WCWB Regional Committees, as well as the Secretariat, worked along the same lines. As a result, the number of Associate Members, which was 48 at the time of the New Delhi Assembly, and despite the fact that we lost 4 Associate Members for various reasons, had now increased to 61, the last 3 to join being ADEVIA (Association of Editions for the Visually Handicapped of South America), the Scottish Office Library, Edinburgh and the Deutsches Katholisches Blindenwerk, Federal Republic of Germany.

The Secretary General presented the application for International Membership received from Christoffel Blindenmission im Orient, Federal Republic of Germany. This organization, which does important work in developing countries of Asia and Africa appeared to qualify for such international membership. This application being supported by Mr. John F. Wilson, the Christoffel Blindenmission was elected unanimously to international membership. The following day, the application of the International Services for the Blind, whose headquarters are in the United States, was examined. Following a presentation by Mr. Boulter of the activities of this organization, which provides training for blind persons from foreign countries and furnishes consultation services in the development of rehabilitation for the blind in other countries, and with the support of Mr. H. Roberts, the International Services for the Blind was elected unanimously to international membership.

**REPORT OF THE HONORARY TREASURER OF THE
WORLD COUNCIL FOR THE WELFARE OF THE BLIND
FOR THE YEAR ENDED 31st DECEMBER 1973,
AND FOR THE QUINQUENNium 1969-1974**

As the Financial Year of our organisation ends on the 31st December each year I accepted, as a matter of administrative convenience, responsibility for the accounts of the World Council with effect from 1st January 1970. The accounts appended are therefore for the fourth year of the Quinquennium; those for the year ending 31st December next, including the expenses of the São Paulo General Assembly, will not be available until early in 1975.

During the period from 1st January 1970, the World Council has been learning to stand on its own feet in the financial sense of the word, having agreed to appoint a Secretary General and staff from its own resources and being no longer dependent on the benevolence of such organisations as AFOB, RNIB and St. Dunstan's. We have continued to enjoy the benefit of accommodation at a nominal rental, firstly from the AFOB (Paris) and, when this no longer proved practicable, through the great generosity of the Amitié des Aveugles de France at our present address. Following an investigation into certain irregularities in administration in the autumn of 1970, it was decided to dispense with the services of the then Administrative Assistant and to recruit a full-time Administrative Assistant in the person of Mme. Hilary Gohier. At a later stage, our staff has been further augmented, owing to increased work, by a part-time clerical assistant. I am most grateful to a then colleague at the RNIB, Mr. John Godfrey, for having undertaken an audit of the Paris Accounts in 1970 and for having organised a proper financial control of our Paris Headquarters Accounts.

Unfortunately, the period of administrative self-sufficiency has coincided with four years of world-wide inflation, which means that despite appeals to the generosity of a number of member countries, notably the UK, France, Germany and Canada, our slender capital resources have been steadily eroded. 1972 was an exceptionally bad year from our point of view. On 1st January 1972, our total balances amounted to approximately \$48,000, by the year end our balances were down to less than \$20,000. The principal item of expense during that year was the cost of travel to the 1972 Moscow Executive which, despite the amazingly generous hospitality of our Russian hosts, necessitated outgoings of some \$29,000. The Executive Committee in Moscow recommended an increase in the subscriptions of representative and international members from \$100 to \$150 and from \$200 to \$300 respectively. With the postal approval of the General Assembly, these new rates came into operation in 1973, but such has been the increase in expenditure caused by inflation and the (gratifying) increase in committee activity, coupled with the adjustments due to differing

exchange rates, that our cash balances have appreciated by less than \$2,000 during the year. With the expenses of the General Assembly and continued increase in the costs of all services to take effect in 1974, I should seriously doubt if there will be any significant balances remaining in any of our three Accounts by the 31st December next.

If we are to appoint a full-time successor to our present Secretary General when she retires in early 1975, I would estimate that our subscription income plus donations, etcetera, will just about cover our Headquarters Administrative costs leaving nothing for our Regional and Consultative Committees or for any development work.

It will be for the Executive Committee and subsequently the General Assembly to consider a number of alternatives.

1. Has the time arrived when we must again increase the subscription?
2. Do we make further approaches to International Grant-making Organizations? (It should be noted that I have already approached nine such organizations this year and have so far received six refusals and only one (modest) success.)
3. Can we afford to continue to grant travel and subsistence expenses to Executive and Committee members?
4. Must we revert to the policy of asking the larger national organizations to make additional financial or administrative contributions?
5. Should we consider amending the Constitution to allow the largest nations (over 40,000,000) a larger number of representative members.

or

6. Is there some other way in which we can achieve a greater income?

Turning to the 1973 Accounts in detail, it will be seen that despite the increased subscription our income from that source only rose by some \$4,400 during the year. This was accounted for by some late payments (after 31st December 1973), some defaulters, and a few resignations owing to the increased subscriptions. Most of the allocations to Regional and other Committees had already been made and 1973 could be considered to be a year when our expenses (other than administration) were extremely low. Even so our cash position was still precarious at the year end. Schedules 1 and 2 show the disposition of our cash balances at the beginning and at the end of the year.

The final attachment shows the position of the Helen Keller Deaf-Blind Fund and of the Aid to Developing Countries Fund. Neither of these funds is available for the general purposes of the Council. The Committee on Services to the Deaf-Blind have recommended a transfer of the Helen Keller Fund to London in view of the higher interest rates obtaining there. The Finance Committee have agreed in principle to do this, but in view of the uncertain state of the international money market, I am proposing to defer a final decision on this until the São Paulo meetings of the Executive Committee.

We are under a legal obligation to have our accounts audited once during the quinquennium, and the attached accounts have been certified. I should like to record our thanks to Mme. Szwerebrot-

Estienne, Certified Public Accountant Auditor, for having audited the Paris Accounts; to Mr. Alfred Lisi of AFOB for the same service in New York; and to Mr. John Godfrey, OBE, FCA, for having undertaken the audit of our London Accounts and for having certified the Consolidated Accounts for 1973. We are most grateful to them all.

I should also like to record my own thanks to the Royal National Institute for the Blind for granting me office facilities and secretarial help and particularly to their Chief Accountant, Mr. R. C. Doe, for his help in keeping our books and in the preparation of our Annual Accounts.

31st May, 1974

J. C. COLLIGAN
Honorary Treasurer

WORLD COUNCIL FOR THE WELFARE OF THE BLIND
SUMMARY CASH STATEMENT
FOR THE YEAR ENDED 31st DECEMBER 1973

	GENERAL ACCOUNT			
	PARIS US \$	NEW YORK US \$	LONDON US \$	TOTAL US \$
Balances in hand 1.1.73 (Schedule 1)	1,096	15,153	3,429	19,678
<i>Add:</i> Transfer from Helen Keller Fund in respect of grant made in 1971 to Perkins Institute		1,500		1,500
	1,096	16,653	3,429	21,178
<i>Add: Receipts</i>				
Membership Fees	21,438	1,400	1,995	24,833
Donations	—	—	734	734
Interest	—	65	224	289
Miscellaneous	422			422
UNESCO Subsidy	1,062			1,062
	24,018	18,118	6,382	48,518
<i>Less: Payments</i>				
Administration Expenses ...	23,021		38	23,059
Travel	399		2,614	3,013
Miscellaneous		50		50
Leaflets (contra to UNESCO Subsidy)	1,062			1,062
	24,482	50	2,652	27,184
	—464	18,068	3,730	21,334
Transfers	4,163	—3,000	—1,163	
Differences on exchange	—29			—29
Adjustment of balances at 1.1.73 to exchange rates at 31.12.73 ...	—26		—220	—246
Balances in hand 31.12.73 (Schedule 2)	3,644	15,063	2,347	21,059

(Signed) J. C. COLLIGAN Hon. Treasurer

Auditor's Report to the Members of the World Council for the Welfare of the Blind

- I have audited the records of the Council maintained in London and am satisfied that the column headed London on the Summary Cash Statement above correctly records the transactions by the Hon. Treasurer's Office in London during the year ended 31st December 1973 and Schedule 2 the balances with London Banks at the 31st December, 1973.
- I have had presented to me Accounts for the Paris Office certified correct by Madame Szwerebrot-Estienne, a Certified Public Accountant, and Accounts for the New York Office certified by Alfred Lisi, Associate Director of Finance of the American Foundation for the Blind and I am satisfied that the Summary Cash Statement taken as a whole correctly represents the combined transactions of the three offices for the year ended 31st December, 1973. The transactions in Sterling and French francs have been converted to US Dollars at the Exchange rates ruling on the 31st December, 1973.

20 Westergate Close,
Singleton Crescent,
Ferring,
Worthing BN12 5DB,
England

(Signed) J. A. GODFREY
Chartered Accountant,
Hon. Auditor

**WORLD COUNCIL FOR THE WELFARE OF THE BLIND
SCHEDULES TO THE SUMMARY CASH STATEMENT
FOR THE YEAR ENDED 31st DECEMBER 1973**

SCHEDULE 1—Balances at 1.1.73

	PARIS US \$	NEW YORK US \$	LONDON US \$	TOTAL US \$
Paris: Dollar a/c	383			
French Franc a/cs fr. 3,237.17... ..	713			1,096
New York: Current a/c		9,983		
Savings and Loans a/c		5,170		15,153
London: Current a/c £323.13			801	
Deposit a/c £1,059.90			2,628	3,429
	1,096	15,153	3,429	19,678

Exchange rates at 1st January 1973: £1 sterline = US \$2.48
US \$1.00 = french francs 4.54

SCHEDULE 2—Balances at 31.12.73

Paris: Dollar a/c	780			
French franc a/cs fr.13,489.63	2,864			3,644
New York: Current a/c		983		
Savings and Loans a/c		17,085		
Less: Due to A.F.B.*		—3,000		15,068
London Current a/c —£122.59			—284	
Deposit a/c £1,134.25			2,631	2,347
	3,644	15,068	2,347	21,059

Exchange rates at 31st December 1973: £1 sterling = US \$2.32

US \$1.00 = french francs 4.71

* Mr. A. Lisi reported that as proper signatures were not available to withdraw funds from Greenwich Savings, a temporary loan was made by A.F.B.—this was repaid on March 14, 1974, by withdrawal from Greenwich Savings Bank.

WORLD COUNCIL FOR THE WELFARE OF THE BLIND

HELEN KELLER DEAF-BLIND FUND

Receipts and Payments Account for the Year Ended 31st December 1973

	US \$
Balance in hand at 1st January 1973	26,777
Less: Transfer to World Council General Account in respect of grant made to Perkins Institute in 1971	1,500
	25,277
Add: Interest received in the Year	3,816
	29,093
	US \$
Less: Grants made in the Year:	
Scholarships at St. Michielgestel, Holland ...	1,500
Deaf-Blind Seminar, Condoover, England, July 1974	1,500
	3,000
Balance in hand at 31st December 1973	26,093

AID TO DEVELOPING COUNTRIES FUND

Donations to the Fund received during the year ended 31st December, 1973, totalled £1,515.36 sterling (US \$3,515.64).
No payments were made in that period.

REPORT OF CONSULTATIVE COMMITTEE ON EDUCATION

by Dr. Jeanne Kenmore,

Chairman of the International Council for
Education of the Visually Handicapped (ICEVH)

Quinquennial 1972

The Fifth Quinquennial Conference of the **International Council for the Education of the Visually Handicapped** was held in Madrid, Spain, from July 25 to August 2, 1972, with Mr. Tore Gissler of Sweden presiding as Chairman. The exceedingly generous host organization was the **Organizacion Nacional de Ciegos** of Spain whose President was Mr. Ignacio Satrustegui. The Proceedings of this conference will shortly be available from Tomtebodaskolan, Solna, Sweden.

Among the changes in ICEVH which were initiated in Madrid was a new name. Formerly known as **The International Council of Educators of Blind Youth**, our committee now bears the name: **The International Council for the Education of the Visually Handicapped, ICEVH**. The reason for the change was that most educational and vocational schools and programs for blind youth in the world also include a high percentage of partially seeing, and the term "visually handicapped" is an encompassing one which includes any degree of visual loss severe enough to be handicapping.

The conference in Madrid was attended by 490 participants and observers from 58 countries, an increase of 44% in attendance over the previous conference held in 1967. Our Spanish hosts provided the use of the new, beautiful Madrid conference center, incredible hospitality, an efficient team of interpreters in English, French and Spanish, and unusually helpful hostesses and assistants.

Seven general sessions were held on the following subjects:

1. The New Mathematics
2. Programmed Learning
3. Open Education Programmes
4. Education for Life in the Community
5. Occupational Training and Placement
6. Border Liners—Problems of the Low Visioned
7. Research

In addition there were opportunities for discussion groups to meet on selected topics, sessions showing new films, and an exhibition of new aids. The general theme of the conference, **New Subjects, New Methods and New Pupils in the Education of the Visually Handicapped**, was well presented in all aspects of the programme.

Visits were arranged to centers of the Spanish National Organization of the Blind, to the beautiful, historical city of Segovia, and within Madrid.

The new officers which were elected for the five year period until 1977 were:

Chairman: Dr. Jeanne R. Kenmore, AFOB, Paris
 Vice Chairmen: Prof. Dr. Chikao Sato, Japan
 Mr. Michael Colborne Brown, United Kingdom
 Secretary: Mrs. Rehmurt S. Fazelbhoj, India
 Ass't Secretaries: Mrs. A. M. Bénard de Costa, Portugal
 Mr. Marcel Bonhommeau, France
 Mr. William Brohier, Malaysia
 Mrs. Dorina de Gouvêa Nowill, Brazil
 Mrs. Pirkko Kärkkäinen, Finland
 Mr. Martin Nnoma, Ghana
 Mr. Eric B. Searle, Australia
 Dr. Franjo Tonkovic, Yugoslavia
 Dr. J. Max Woolly, United States

The full list of officers, members of the Executive Committee and Honorary Life Members is available on request.

New Concerns

ICEVH accepted the responsibility in Madrid of being concerned in future programmes and projects with the needs of partially seeing youth as well as blind, and with the vocational counseling, training and placement of visually handicapped persons up to the age of 23, the age that the United Nations consider as the beginning of adulthood.

New Sub-Committees

To facilitate the work of the organization, sub-committees were proposed and chairmen were subsequently appointed by Dr. Kenmore.

Committee on Aid to Developing countries

Chairman: Mr. F. H. G. Tooze, England

Committee on Teacher Training and Teaching Techniques

Chairman: Dr. Nathalie Barraga, United States

Committee on Finances

Chairman: Mr. Eric B. Searle, Australia

Two other committees selected their own chairmen:

Committee on Research

Chairman: Dr. Carson Y. Nolan, United States

Committee on Deaf-Blind Children

Chairman: Dr. Edward J. Waterhouse, United States

The work of these committees, in the time since the Madrid Conference, has moved forward. The **Aid Committee** held a week-long meeting in England in May 1973 to formulate specific plans for assistance to developing countries which would require little money but great professional knowledge. A series of short courses to be offered certain developing countries was planned which would be financed in the following way: 1) Experts on certain subjects would offer their services for a specified number of weeks without salary. 2) The Countries receiving the services of these experts through organized courses would provide suitable room and board. 3) ICEVH would pay for the transportation costs of the experts.

The first course was offered in July 1974 in Kenya. At least two courses and perhaps three will be arranged in other countries each year between now and the end of 1977.

The Committee on Finances opened our first organizational bank account and has been collecting the annual fee of \$10 per delegate per country, soliciting contributions from large organizations and working out other schemes to raise money.

The Research Committee has been concerned with the international exchange of information regarding completed research and also research projects in progress. A meeting of this committee will be held this fall during which increased exchange of information will be possible.

The Committee on Teacher Training has been compiling information on all the training programmes for teachers of blind and partially seeing children in the world as the first step in a programme which would foster exchange of university personnel for short periods of time.

The Committee on Deaf-Blind Children held its Fifth Tri-Annual World Conference at Condover Hall in Shrewsbury, England, in July 1974. Mr. Michael Colborne Brown, Chairman of the Programme Committee, arranged seven days of meetings and demonstrations on techniques of teaching deaf-blind children under the conference theme "Theories into Practice".

New Projects

Some additional new projects have been attempted by the officers and Executive Committee members. It was decided to have not only member nations of ICEVH but also individual members. For a fee of \$5, for the five year period from 1972 to 1977, an individual member will receive copies of the semi-annual publication, *The Educator*, and other small publications. One example is a list which is now being printed of as many of the schools for blind and partially seeing children in the world as we were able to learn about. In addition to names and addresses there is basic information on the type of school, kinds of children served, etc. . . . Other publications to come out of the next two years will be articles on subjects of strong interest to teachers and psychologists on which little has yet been written.

As one means of informing appropriate people about ICEVH articles were written for *The New Outlook for the Blind*, *The New Beacon*, *Comme Les Autres*, and other journals. A short brochure with information about the 13 officers and some of the work of ICEVH was published and widely distributed.

Regional Conferences

One new large effort of ICEVH has been the development of regional conferences during the interim between quinquennials. The first ICEVH Regional Conference was held in Singapore, March 4-10, 1973. Mr. David Sebastian of Singapore was the Chairman and there were 76 participants from 10 Asian countries plus single representatives from Great Britain and the United States.

The second ICEVH Regional Conference was held in Brisbane, Australia, January 13-20, 1974, with the theme: "A Problem of the Seventies—How Do We Teach the Hard to Reach Visually Handicapped Child?" Mr. Eric B. Searle was the Chairman and participants came from all over Australia, from New Zealand, and from Great Britain and the United States.

The third ICEVH Regional Conference is now being planned. It will be for Europeans and will be held in Yugoslavia during the summer of 1975. The main subjects for consideration will be the two new concerns of ICEVH, the partially seeing child and vocational training and placement for both partially seeing and blind youth.

Newsletter

The semi-annual publication, *The Educator*, named many years ago by Mr. K. N. K. Jussawala of Bombay has changed character somewhat. It contains more international news than previously, has a section devoted to news on programmes for deaf-blind children, and serves as a link between members during the time between international meetings when we are at work in our respective countries. Mr. William Heisler has provided continuous and excellent service as its Editor. Through the generosity of the Spanish Organizacion Nacional de Ciegos, we are able to offer it in Spanish as well as in English.

Next World Conferences

The next Tri-Annual Conference on Deaf-Blind Children will be held in Australia in 1977, and the next ICEVH Quinquennial Conference will be held in Japan the same year.

REPORT OF THE LOUIS BRAILLE MEMORIAL COMMITTEE

by André Nicolle, Chairman

At the meeting of the Executive Committee held in Moscow in May 1972, I had the opportunity of explaining how my colleagues of the Louis Braille Memorial Committee and I fulfilled our task since the General Assembly in New Delhi.

As regards this period, I shall simply sum up the detailed information already provided. I underlined then that relations between Mr. Roblin, the curator of the Louis Braille Museum, and our Committee were now normal. His devotion to our cause and his generosity are commendable.

I also mentioned that the museum attendant, Mr. Delapierre had retired and that we had found a successor, in the person of Mr. Taillefer, a pensioned employee of the French Railways, who is both reliable and punctual. He receives visitors in the afternoons and Mr. Roblin joins him when French or foreign official delegations visit the museum.

For example, in September 1972, on the occasion of the 20th anniversary of the transfer of Louis Braille's remains to the Pantheon, the members of the Louis Braille Memorial Committee and the French National Committee had the honour and great pleasure of welcoming to Paris and Coupvray the representatives of many foreign nations. They gathered in number to pay homage to the genius who invented our system of writing. We were deeply touched to be surrounded by so many friends during the ceremony which took place at the Pantheon, in the presence of Mlle. Marie-Madeleine Dienesch, Secretary of State for Social Welfare and Rehabilitation, and at the religious service conducted by Cardinal Danielou in the little church of Coupvray. The official visit of the Museum took place later in the presence of representatives of the French Government.

I also informed the Executive Committee of the concern we felt regarding the financial stability of the Louis Braille Memorial Committee. The finances for 1970 only just balanced, thanks to an exceptional grant constituted by funds collected in the past by a Committee which had been set up before the 1939 War for the creation of a memorial to the memory of Louis Braille in Paris. Our Committee found it necessary to send an urgent appeal to the members of the World Council asking for their help to meet the expenses of maintenance, upkeep and caretaking of the birthplace of Louis Braille.

This appeal met with great success since it enabled the Committee to collect a sum of a little over F. 23,000 during 1971, F. 6,000 of which came from French organizations and F. 17,000 from associations abroad. Thanks to this contribution, we were able to cover the expenses of the years 1971 and 1972. But the future remained all the more pre-occupying as Louis Braille's house needed extensive repairs; the roof of this edifice built at the end of the XVIII century had to be com-

pletely replaced, which meant an additional expense of F. 20,000 over and above the usual running expenses.

To help us carry out our work the Executive Committee unanimously adopted two suggestions submitted by us, a decision for which we are sincerely grateful. The first proposal was that as from 1972 the Louis Braille Memorial Committee should become a standing committee of the World Council, thus entitling it to receive the annual subsidy of \$300. The second consisted in putting a recommendation to the vote that all member organizations should send the Louis Braille Memorial Committee a voluntary donation every year to help balance its budget, the minimum contribution being set at \$6 per member.

But these new arrangements—welcome and generous as they were (the second of which would only take effect as from the beginning of 1973)—were clearly insufficient to enable us to undertake the repairs to the birthplace of Louis Braille so urgently required. This is why we had to appeal once again to the solidarity of WCWB members by asking them to send us, as early as 1972, a special contribution to enable us to start the necessary work.

Once again the members of the World Council and the French associations were numerous in responding to our appeal; during the financial year 1972/73 we received F. 32,038 in donations including the voluntary contributions for 1973 recommended by the Executive Committee. We would like to express our deep appreciation to the members of the World Council for their fidelity to the memory of Louis Braille.

It is fitting that we thank by name those associations which have been particularly generous, i.e.

- AMITIE DES AVEUGLES DE FRANCE
- SOUTH AFRICAN ASSOCIATIONS OF THE BLIND
- NETHERLANDS ASSOCIATION OF THE BLIND
- ASSOCIATION VALENTIN HAUY, FRANCE
- IMPERIAL COURT OF IRAN
- LIGUE BRAILLE, BELGIUM
- SECTION ROMANDE DES AVEUGLES DE LAUSANNE
- CLEVELAND SOCIETY FOR THE BLIND, U.S.A.
- U.S.A. MADISON COUNCIL

We wish also to emphasize that the French authorities have continued to support the Museum financially, especially the Seine & Marne Département and the Organizing Committee of the National Day of the Blind.

Thanks to the funds collected, we were able to carry out the proposed repairs which amounted to F. 18,007 and we also met the major part of our current expenses. However, the two financial years 1972 and 1973 showed a deficit of F. 9,252.

With the approval of the French National Committee, we requested the French associations to make a new effort and have already received appreciable sums. But owing to the constant rise in the cost of living, it is feared that these contributions will not enable us to completely balance our budget for 1974. This is the reason why our Committee is taking the liberty of suggesting to the General Assembly not only to

endorse the recommendation adopted by the Executive Committee in Moscow, but to raise the minimum contribution expected of national and international members from, say, \$6 to \$8 per Representative Member.

We leave the decision to the wisdom of the General Assembly for we have complete confidence in the gratitude of our colleagues to Louis Braille. We have, moreover, recently had new proof of this by the decisions taken by the European Regional Committee of the World Council to declare 1975 the Year of the 150th anniversary of the adoption of the braille system and to commemorate this event by an international congress to be held in Paris.

The Louis Braille Memorial Committee was delighted with this decision and the French National Committee has decided to give full support to the organization of the celebration.

In the framework of this Congress, which will probably last three days, a visit to Coupvray will be arranged. All our friends from abroad who will honour us by attending the ceremonies, will thus be able to see for themselves that our Committee is carrying out its mission well by keeping the museum in good condition and improving the display of the exhibits, a proof of the universal adoption and development of the Braille system.

In this field, as in others, WCWB can be proud of the work it has accomplished and we feel sure it will continue to fulfil this great task.

PROFESSIONAL SESSION 1

PREVENTION OF BLINDNESS

Thursday morning, August 8, 1974

Chairman: Dr. Claude Chambet,
President, Association "La Lumière par le livre", France

REPORT OF THE PREVENTION OF BLINDNESS COMMITTEE

by John Wilson, Chairman
(Royal Commonwealth Society for the Blind)

Resolution 3 of the 1969 WCWB Assembly expressed alarm at the evidence of the massive increase in the number of blind people, particularly in the developing countries, and noted the inadequacy of the resources at present mobilised nationally and internationally for the prevention and cure of blindness. The Assembly resolved that WCWB should seek official relationship with the World Health Organisation, whose increasing involvement in the prevention of the causes of blindness was noted with appreciation and urged constituent organisations of WCWB to support, to the maximum of their constitutional power, the establishment of national machinery for the prevention of blindness and for the promotion of ophthalmic research. Relief organisations were urged to intensify action against nutritional blindness amongst children and the Committee was instructed to collaborate with WHO and with the other non-governmental organisations concerned in securing international acceptance of a uniform definition of blindness. This report summarises action taken by WCWB to implement these resolutions. A separate report will be circulated on the important proposal to establish a new world agency for the prevention of blindness.

In this field, WCWB's influence is expressed in its co-operation with other organizations, most notably, the World Health Organization with which it was granted an official relationship at the beginning of 1973 but with whose Secretariat it has collaborated most effectively over many years. Following the policies adopted at the 1969 World Health Assembly, we collaborated with WHO in a painstaking but somewhat disappointing effort to obtain a more reliable estimate of the number of blind people in the world and subsequently participated, in November 1972, in a WHO expert Study Group on the Prevention of Blindness. This Study Group agreed on a classification of blinding diseases, proposed an international definition of blindness, recommended priorities and advocated the establishment of an organization to extend and co-ordinate international action.

Definition of blindness

In 1954, WCWB proposed its minimum definition of blindness based on visual acuity of 3/60 (10/200) but with a suggestion that, where possible, 6/60 (20/200) should be the criterion. The Director-General's report to the 1972 World Health Assembly after noting the existence of 75 different national definitions of blindness, proposed a recognition of four categories of visual impairment ranging from "no light perception" to a visual acuity of 6/18ths. At the subsequent meeting of the WHO Study Group, these categories, with slight technical modifications, were approved and it was recommended that for the purpose of the compilation of international statistics a person should be regarded as blind who has a visual acuity of 3/60ths or less. This is broadly consistent with WCWB's 1954 definition which was fully considered in all the discussions at Geneva. The report of the WHO Study Group on the Prevention of Blindness, which is one of the most significant policy documents in this field, is published in the WHO technical report series 1973, No. 518.

River Blindness (ocular onchocerciasis)

One of the earliest recommendations of our Prevention of Blindness Committee was that co-ordinated international action should be taken to control river blindness, particularly in the endemic areas of Africa. It is therefore particularly gratifying that, with support from the World Bank and UNDP and other agencies, the World Health Organisation and seven governments are now engaged in co-ordinated inter-territorial action to control, throughout the main endemic areas of West Africa, the simulum flies which are the vector of this disease. The affected area includes some 20 million people at risk of whom possibly two million are already blind. One of the Council's international members, RCSB, has established a specialised mobile team in Northern Ghana to undertake surveys and research in conjunction with the international control programme.

Ocular malnutrition (xerophthalmia)

Following the resolution on this subject at the WCWB New Delhi Assembly we had an opportunity to present a statement to the Executive Board of UNICEF in April 1971. On behalf of the organisations concerned internationally with blindness and its prevention, we urged that co-ordinated international action should be taken against the growing menace of xerophthalmia which is now recognised as the largest cause of child blindness in the developing world. The disaster which we had feared happened in 1972 in Bangladesh when an estimated 100,000 infants went blind from lack of Vitamin A in the drought and famine conditions during and after the civil war.

UNICEF in consultation with the international members of WCWB and with other non-governmental agencies, organised a mass distribution of vitamin capsules to children in the vulnerable age groups. This programme which is still continuing, has probably been the major factor in preventing a repetition of the disaster.

We can claim part of the credit for the fact that during the past 5 years world interest has been alerted to the ocular consequences of malnutrition and projects for the prevention of xerophthalmia have been instituted in many countries. In this direction the work of AFOB in El Salvador and Indonesia and the nutritional rehabilitation project sponsored by the RCSB in Southern India (with the support of the Associated Country Women of the World) have become international demonstrations.

Mass treatment in rural areas

The New Delhi Assembly emphasised the need for greatly increased action in rural areas where, for lack of treatment facilities, great numbers of people needlessly remain blind from conditions such as cataract or go blind unnecessarily from trachoma. During this past 5 years the size of this problem has been dramatically illustrated in surveys such as that conducted in India which indicate that some 4 million people are blind from curable cataract. Recognising that this is a growing problem linked with advances in longevity throughout the developing world, WHO has now included the treatment of cataract amongst its major priorities in this field.

The use of eye camps and mobile hospitals for cataract surgery in Asia and of mobile teams for the mass treatment of trachoma and similar conditions in Africa, has greatly expanded during the past five years. In March 1973, WCWB and the International Association for the Prevention of Blindness were associated with the plan proposed to the Prime Minister of India under which, in a national programme of eye camps and rural treatment facilities, an additional 500,000 cataract operations would be performed annually. This plan was subsequently commended by the Central Government to the State Governments of India and has already resulted in some areas in greatly increased treatment campaigns, for example, 50,000 cataract operations in Tamil Nadu last year and a target of 150,000 cataract operations in Uttar Pradesh during 1974.

RCSB now devotes the major part of its resources to the prevention and cure of blindness. Last year in medical projects sponsored by the Society in 14 countries of Africa and Asia, 39,409 operations for the restoration of sight were performed and a total of 506,000 people had treatment for conditions which might eventually have caused blindness.

Other organizations are now devoting increasing resources to such rural treatments, notably the Christoffel Blindenmission of the German Federal Republic; Operation Eyesight Universal (Canada) and organizations in the United States, Sweden, the Netherlands, Japan and South Africa.

Amongst the ophthalmically orientated organizations, the International Association for the Prevention of Blindness is the central non-governmental organisation in this field. As directed at the New Delhi Assembly, we have worked in close partnership with the Association on whose Executive Committee WCWB is represented. Our two organizations have combined, through the informal World Prevention of

Blindness Committee, in representations to WHO and to the other United Nations agencies and there has throughout been agreement on policies and priorities.

Prevention of Blindness conferences

WCWB and its international members took a prominent part in the first international seminar on the prevention of blindness sponsored by the International Association for the Prevention of Blindness in Jerusalem in 1971. This conference, by bringing together scientists of various disciplines, and by its emphasis on a multi-disciplinary approach to preventing blindness, was of outstanding importance. It led to the sponsoring by IAPB of an even more representative conference in Paris, May 1974 when ophthalmologists and scientists from 32 countries met, in conjunction with the International Congress of Ophthalmology, to consider means of controlling the world's major causes of blindness and to agree on the need for a new world agency to promote international action.

Mr. Wilson then introduced his proposal for the creation of a new International Agency for the Prevention of Blindness, as described in his paper circulated before the Sao Paulo General Assembly and summarized below:

Proposed New Organization

In February 1974, following proposals made by the WHO Study Group on the prevention of blindness officials of WHO proposed informally that the non-governmental organisations concerned should examine the possibilities of establishing an appropriate organization to stimulate increased international action for the prevention of blindness and to mobilise resources. This proposal was made in discussions with the President of WCWB, the President of the International Association for the Prevention of Blindness (IAPB) and the Director of the Royal Commonwealth Society for the Blind (RCSB). These representatives thereupon discussed this proposal within their organizations and in correspondence with the other agencies concerned. Unanimous agreement was recorded on the need for an appropriate organization but further discussion was required on the form this organization should take.

At a meeting in Stockholm on 26 March 1974, this matter was discussed by Honorary Officers of WCWB with members of the committees on aid and on the prevention of blindness. This meeting recognised the most urgent need to extend international action for the prevention of blindness and welcomed the proposal that the non-governmental organizations should co-operate in establishing an appropriate organization. However, the view was expressed that, though WCWB Prevention of Blindness Committee could be expanded to achieve greater co-ordination of the activities of member organizations, it would not be possible, having regard to the constitution of WCWB and its prior commitment to the welfare of the blind, for WCWB itself to regard such work as its major activity. Nor could it invest in the prevention of blindness substantial funds or engage in large scale fund raising.

It was noted that IAPB already existed as an international organization in this field but that if it were to serve as the nucleus of the new movement, it would need to be reconstituted and reorganized on a broader representative basis.

The decision of the Stockholm meeting—in which the leadership of IAPB and of the International Council of Ophthalmology subsequently concurred—was that a Preparatory Commission should be established to examine the best ways of bringing a new organization into being and to formulate a draft constitution and operational plan. The organizations concerned welcomed the readiness of RCSB to provide administrative and financial support for the Preparatory Commission with the implication that, should a satisfactory organization be evolved, the Society would give it the necessary support during its first three years of operation.

In Paris on the 23-25 May 1974, this matter was considered by the Executive Committee and by the General Assembly of IAPB. The Association—recognising the time had come to mobilise inter-disciplinary resources in a world effort for the prevention of blindness—agreed to suspend its constitution so that—reconstituted and reorganized and possibly with a new name—the association might serve as the basis of a new agency in which blind welfare and ophthalmic organizations and other appropriate interests could be fully represented. Mr. John Wilson, Chairman of WCWB's Prevention of Blindness Committee was elected the first non-ophthalmologist President of IAPB and requested, as a link between the various organisations concerned, to take the initiative in promoting the formation of the new organization.

Recommendations of the Preparatory Commission

The Preparatory Commission had its first meeting in Paris on May 26th 1974. The Commission consisted of 4 representatives appointed by WCWB (Dr. Hedkvist, M. Nicolle, Dr. Susan Pettiss, Mr. John Wilson); 3 representatives of IAPB (Professor Von Bahr, Dr. Edward Maumenee, Dr. W. J. Holmes); the President of the International Federation of Ophthalmic Societies; the President of the International League against Trachoma. Two advisers from WHO attended the meeting.

The Commission, after fully considering various possibilities, agreed unanimously that IAPB—suitably reconstituted and reorganized—would provide the best nucleus for the formation of the new international agency. It could bring to the new movement many years of international experience in this field and invaluable links with the ophthalmic profession throughout the world. The Association's readiness to suspend its constitution so that equal representation can be provided for all appropriate interests, should ensure full co-operation whilst avoiding the possibility of competition and overlapping which would have existed if IAPB, in its original form, had continued as a parallel organization.

The Commission considered the powers which would be necessary for the new organization and agreed that these should make possible a

comprehensive range of activity for the prevention and cure of blindness and for the international mobilisation of the necessary resources. The relationship between the new agency and the international organizations concerned with blindness and ophthalmology was discussed and it was agreed that the fullest communication and co-operation must be maintained not only with the international headquarters of WCWB but also with its regional committees and, at the national level, with organizations for and of the blind.

Preliminary consideration was given to the draft constitution and particularly to the composition of the Executive Board. It was agreed to recommend that this should consist initially of an equal number of representatives appointed respectively by WCWB and by the present Executive Committee of IAPB acting in consultation with the International Federation of Ophthalmic Societies. On the initiative of these founder members, the Executive Board would subsequently be expanded to include representatives of scientific disciplines other than ophthalmology and of international non-governmental organizations concerned with community service and international relief. The General Assembly of the organization whose functions would be designated in the draft Constitution, should provide for the widest possible representation of international and national organizations and individual membership should be open to anyone who has a useful professional contribution to make to the work of the agency.

PRIORITIES AND POLICIES IN THE DEVELOPMENT OF INTERNATIONAL PROGRAMMES FOR THE PREVENTION OF BLINDNESS

by Dr. M. L. Tarizzo, Virus Diseases
World Health Organization, Geneva

One of the most striking facts about blindness is that a very large part of it could be prevented and another cured by applying existing knowledge.

There is however a development gap even with regard to blindness. Most cases of blindness in the more technologically advanced parts of the world are in fact the consequence of non-preventable causes and their vast majority is not curable. On the other hand, blindness caused by infectious diseases and by malnutrition, which has practically disappeared in the more developed countries, still predominates in other regions where rates of blindness are proportionally higher.

Although there are no complete and comparable data on blindness in the world today, various estimates tend to agree on overall rates ranging around 200 to 500 blind persons per 100,000 in the more developed countries, and reaching 1,000 and beyond in some of the less developed ones where trachoma, onchocerciasis and xerophthalmia still take a heavy toll together with other infections such as leprosy, syphilis, gonorrhoea, smallpox, etc., most of them theoretically preventable causes of loss of vision. Even more tragic is the fact that the majority of these causes of blindness tend to affect younger persons than most of the causes of blindness predominant in the more developed countries, thus adding to their social and economic impact. As the average age of the population in different countries tends to be inversely proportional to the degree of development, the initial statement becomes even more striking.

Like in other fields, most of the new knowledge concerning causes of blindness and remedies for them comes from the more developed countries, where the necessary facilities and resources are available. Obviously this search for new knowledge is oriented towards problems of interest for these countries and little or no attention is usually given to problems of interest elsewhere, but with less emotional or intellectual appeal in a different context.

Quite often, persons from developing countries go for their training and especially for advanced training, to the more developed countries as it is there that new and better knowledge can be acquired. Loss of vision and blindness being the result of pathological processes affecting the eye or vision in general, medical problems related to them are usually dealt with by ophthalmologists. However, and with some notable exceptions, the most capable, the most brilliant and therefore the most influencing ophthalmologists from a developing country, after training abroad, when they return to their country—if and when they

do—tend to apply to their functions their newly acquired professional competence which may be outstanding but which often is not related to existing priorities and seldom if ever oriented towards public health. This situation is however showing signs of change. There is an increasing awareness at different levels and in different contexts of the fact that activities and responsibilities must be adapted to existing conditions and to realities rather than to fixed schemes which may be ideally right but not necessarily relevant. Furthermore, also with regard to blindness and its prevention, it is becoming gradually accepted that community oriented activities are a better investment of the limited resources usually available and that they are likely to give better and more lasting results, well beyond those which may be obtained only within the artificial environment of a hospital or of a university or research department.

The concept of public health ophthalmology has appeared and it is likely to change some of the approaches to the problem and to open up new perspectives and new possibilities. But of possibly greater significance is the realization that the problem of blindness and its prevention require a multidisciplinary effort utilizing the professional experience and competence not only of ophthalmologists but of a variety of other medical specialists—epidemiologists, public health administrators, microbiologists, nutritionists, geneticists, and so on, and of other professions such as specialists in social and environmental sciences, economists, educators and—why not?—politicians.

The considerations made so far refer to the background and professional orientation of the persons who must evaluate the problem, identify the priorities, recommend and carry out the measures required for coping with them and who are thus ultimately responsible for the action to be taken.

With regard to the priorities themselves, they are obviously determined by the data on the extent and nature of the problem, by its inter-relationship with other priorities and by the resources which are available. When determining them, it is always useful to keep in mind that priorities must correspond to what **can** be done, which is not always the same as what should or could be done.

In my opening remark, I mentioned that one of the most striking facts is the theoretical possibility of preventing or treating a large part of the cases of blindness. However, when priorities must be identified at the international level, a limiting factor is the absence of comparable data on loss of vision and—in some instances—the absence of data of any sort.

In a resolution adopted in 1969 the World Health Assembly recognized this fact and requested the Director—General of WHO to obtain additional data on the problem. A questionnaire was sent to all Member States and on the basis of the information thus obtained and of other available data a report was prepared for submission to the World Health Assembly. In submitting this report, the Director-General stressed the fact that data were too limited for drawing conclusions and for translating them in programme and budgetary terms for medium- and long-term planning. After discussion of the report, the World

Health Assembly adopted in 1972 another resolution which stressed again the need for additional and comparable data, for interdisciplinary studies in collaboration with other agencies, for educational and training programmes, and for intensification of the technical assistance to national programmes for the prevention of visual impairment and blindness with special emphasis on the already identified priorities, i.e. trachoma, onchocerciasis and xerophthalmia.

The need for uniform criteria is emphasized by the fact that in the compilation of cases and causes of blindness in the world published by WHO in 1966, sixty-five definitions of blindness were listed, even if several of them were similar. A positive contribution in this respect was made by the Study Group on the Prevention of Blindness which was convened by WHO in November 1972, in pursuance of the World Health Assembly resolutions. In recognizing the need for a common language, the Study Group recommended that blindness in different countries be defined in terms of these standard categories and it expressed the opinion that blindness be considered as including categories 3, 4 and 5 as defined in the attached table which is reproduced for easy reference (Figure 1). The definition proposed by the Study Group was shortly thereafter recommended for inclusion in the ninth revision of the International Classification of Diseases.

Another important set of information on which priorities may be based is provided by the activities already undertaken in this field by governmental and non-governmental organizations, and by the results obtained by them. For a better appreciation of their scope and impact, and of their potential for the future, consideration must be given to the kind of support, financial or otherwise, and to the sources from which it was obtained, and which are conditioned by the social, cultural and political context in which these activities are planned and are carried out.

The importance given to the prevention of blindness by this meeting is an indication of the need to review and if possible to improve the activities carried out so far and to increase their efficacy and co-ordination in order to avoid dispersion of efforts. This is very much in accordance with what was recommended by the World Health Assembly and by the Study Group convened by WHO. To help in this review, and rather than making this text unnecessarily long, I would like to refer to a very condensed summary of the activities carried out to date by WHO in this field which was prepared for a recent issue of the WCWB Newsletter (No. 41, available from WCWB Secretariat).

In this connexion, there are two basic policy points which I would like to stress, as they have a direct bearing on the role which WHO may play in this field. The first is that the work of WHO is carried out within the budgetary and programme limits set by its governing bodies, i.e. the World Health Assembly and the Executive Board, thus reflecting the overall priorities recognized by Member States. In carrying out the mandate thus received, the World Health Organization makes large use of the opinion and experience of outside experts and it operates in close collaboration with government authorities and with governmental and non-governmental organizations. As for direct assistance to be

given to a specific programme in a given country, this is subject in addition to a specific request by the government in question.

The second point is that it might become desirable to develop special priority programmes—approved or recommended by the governing bodies—beyond the limits of the regular budget approved by the Assembly and consisting of contributions from Member States. A Voluntary Fund for Health Promotion has been established for this purpose, which includes special accounts for different programmes.

From the considerations made in this brief review the following conclusions are drawn and are submitted for consideration by this meeting as possible guidelines for future activities:

1. There is a lack of information on the extent and nature of the problem of visual impairment and blindness in the world. This shortage of adequate information is especially pronounced with regard to the less developed countries.
2. Existing knowledge, if applied, could prevent the majority of cases of blindness caused by infectious diseases and by malnutrition, and restore sight to a very large number of persons. Cases of preventable and curable blindness are much more numerous in developing countries, which are those usually lacking the resources to cope with them and with their social and economic implications.
3. There are significant constraints with regard to the identification of priorities, especially at the international level. In addition to the lack of adequate and comparable data, these constraints are represented by the shortage of available human and financial resources and by the complexity of the problem and of its inter-relationship with other existing or identified public health or socio-economic priorities.
4. The growing awareness of the problem has already led to the development of a number of activities within different contexts and with different immediate objectives, some of them partially overlapping and resulting in unnecessary dispersion of efforts.
5. The first obvious approach to the problem of preventable and curable blindness would appear to be a pragmatic effort to apply existing knowledge to already identified priorities. In the developing part of the world these are trachoma, onchocerciasis, xerophthalmia and cataract. Implementation of effective programmes in this regard is hampered mainly by the lack of coordination and of funds for operational expenses. Available methods for the prevention or treatment of these conditions do not require the participation of highly qualified personnel except at the planning and supervisory level, or of large capital investments.
6. As a second step, more comprehensive and better data should be obtained, especially in the developing countries. This could be done through studies, including surveys, carried out in these countries by

consultants who would be required to work in close collaboration with local personnel so as to develop at the same time the local potential.

7. Emphasis on training of personnel at different levels should be an essential feature of all activities in this field which should in addition always be accompanied by health education programmes. With regard to medical personnel, emphasis should be on the public health training of ophthalmologists, but even more on the development of a multi-disciplinary approach, making appeal to other medical specialists and to specialists in other professions.

8. The attention of national health authorities should be called to the problem of unnecessary blindness through appropriate stimulation of public opinion by information campaigns. It is expected that pressure of public opinion and increased awareness of the social and economic implications of the problem would eventually lead to stronger support of activities at the national and international level.

9. In addition and at the same time, it would be desirable to facilitate coordination and development of activities by intensifying contacts and exchanges among different organizations active in this field. It is suggested that consideration be given to an expansion of the rôle of the present Committee for the Prevention of Blindness of WCWB by inviting representatives of other international organizations to be members of the Committee, which could take the name of International Committee for the Prevention of Blindness. The organizations to be invited would be those having active programmes dealing with blindness and its prevention, or deemed capable of making substantial contributions because of their professional representation and interests. Such an expanded international Committee would have as its main function the promotion of activities in this field and its decisions would be binding for the organizations represented with the Committee. Intergovernmental organizations such as WHO and other specialized agencies of the United Nations system could not be part of the Committee because of their constitutions, but would be invited to take part in its deliberations.

10. In order to promote activities of intergovernmental organizations on blindness and its prevention beyond their present level, it would be desirable to put additional financial resources at their disposal, as contributions to the Voluntary Fund for Health Promotion. Should these contributions be sufficiently large and should there be a reasonable guarantee for their availability over a certain time, this might lead to the establishment of a special account for the prevention of blindness. Activities carried out under such an expanded programme would continue to remain under the control of the governing bodies of WHO, but they would be carried out in consultation with the International Committee for the Prevention of Blindness.

Figure 1

From: The Prevention of Blindness. Report of a WHO Study Group.
Wld Hlth Org. techn. Rep. Ser., 1973, No. 518.

CATEGORIES OF VISUAL IMPAIRMENT AND BLINDNESS (a)

Category of visual impairment (b)	Visual acuity (with both eyes, using the best possible correction)	
	Maximum less than	Minimum equal to or better than
1	6/18	6/60
	3/10 (0.3)	1/10 (0.1)
	20/70	20/200
2	6/60	3/60
	1/10 (0.1)	1/20 (0.05)
	20/200	20/400
3	3/60	1/60 (Finger counting at 1 metre)
	1/20 (0.05)	1/50 (0.02)
	20/400	5/300 (20/1200)
4	1/60 (Finger counting at 1 metre)	Light perception
	1/50 (0.02)	
	5/300	
5	No light perception	
9	Undetermined or unspecified	

(a) If the extent of the visual field is to be considered also, patients with a field of less than 10° but more than 5° around central fixation should be placed in category 3 and patients with a field less than 5° around central fixation should be placed in category 4, even if the central acuity is not impaired.

(b) These categories are intended to correspond with the fourth digit of the numbering system used in the International Classification of Diseases. In this system, the digit 9 customarily signifies "unspecified".

POOLING RESOURCES AND STRENGTHENING RELATIONSHIPS FOR THE PREVENTION OF BLINDNESS

by Susan T. Pettiss, Ph.D.
Director of Blindness Prevention
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If it is an accepted fact that most blindness is preventable, one has to address the question as to why hasn't there been the concerted effort necessary to accomplish this goal. It is inconceivable that the desire to do so is lacking. While technical knowledge still falls short of providing all the answers tremendous strides have been made in recent years. Could it be that resources to put the technical know-how to use are not available? Or has there been a failure to identify the resources, to mobilize them, and exploit them to the fullest to reach the maximum prevention goals.

Resources

The use of the term "resources" in this paper refers to money, personnel, facilities, technology, and commitment. One or more of these resources are needed by the individual in danger of losing his or her sight. All of them are needed in planning for the carrying out measures to prevent blindness in the aggregate. Specifically, I will be discussing them from the point of view of responsible organizations and agencies directing efforts to prevent blindness in populations at large caused by preventable diseases or conditions.

Institutional Arrangements of Resources

In some instances all the resources might be found institutionalized into one body, e.g. a government. In others, one or more resource might be organized into an agency. For instance, at the international level, WHO and UNICEF have **funds, personnel, facilities, technology** and **commitment** in varying degrees. Bilateral government agencies such as the U.S. Agency for International Development (USAID), the Canadian International Development Agency (CIDA), and other national governmental foreign aid agencies have **money, facilities** and/or **personnel**. **Technology** can be found in research centers and universities, in specialized organizations e.g. ophthalmological associations, nutrition institutes, medical societies. The Lions International, foundations and trusts and public interest groups are potential sources of **funds**. Church organizations, youth brigades, international volunteer organizations, local governmental units and sometimes small national charitable organizations often can provide **facilities** but nothing else.

International organizations concerned with blindness, such as the International Association for the Prevention of Blindness and WCWB and their local affiliates have the **commitment** but usually need the other resources.

This array of organized resources might be viewed as concentric circles at the center of which is the potentially blind person—the child, the youth, the adult. Surrounding the individual is the nuclear family, within the larger context of the village, the neighborhood or town. The next circle is usually the state or provincial level government or institution, then the national government. Beyond this circle the resource configuration is not clear but can be thought of as being formed by outer circles of regional arrangements, bilateral assistance resources, and the circle of international bodies . . . both intergovernmental and non-governmental.

Putting Resources to Use

There is no one pattern for putting resources to work but there are certain components that must be in every program. I will be describing later three different examples of how these components fit together in three different situations.

When a new program for blindness prevention is being contemplated by an agency or organization it is essential to look first at the planning process, then fit the needed resources in the various step or steps. These resources might overlap in a step or cover a number of steps. For example:

1. Identification of the problem—**personnel, technology.**
2. Establishment of alternatives and selection of priorities—**personnel, technology, commitment.**
3. Design and implementation of the operations within feasible limits—**money, facilities, personnel, technology.**
4. Evaluation and modification of the program—**personnel, technology, facilities.**
5. Legitimation of experience through expansion, sharing knowledge—**money, personnel, facilities, commitment.**

An Example

Let us examine how this might be applied to one type of prevention program, the prevention of blindness caused by vitamin A deficiency, called xerophthalmia, in children in developing countries.

It is now established that blindness in children caused by vitamin A deficiency is preventable, in fact can be completely eradicated in the world as it has been in the so-called developed countries. In recent years the combination of new technology plus heightened communication of information has brought this goal into focus.

Nutrition sciences have identified foods rich in the vitamin which are to be found everywhere and at a reasonable cost to all income levels. Customs and traditions, however, have not always changed rapidly

enough to make use of this knowledge. Technology has lead to the production of synthetic vitamin A which can substitute for the vitamin in foods. Growing experience and the recent results of research have suggested a variety of strategies to get the vitamin to vulnerable population in appropriate forms.

It remains now for those organizations and governments with the commitment to take the necessary action.

At the international level, the first step in planning is to identify the geographic areas of high risk and plan with responsible governmental bodies in the individual countries thus identified for appropriate measures. Both long term and short term prophylactic measures should be considered, perhaps undertaken simultaneously. Long term measures include nutrition/health education, raising levels of living and fortification of food. Short term approaches to the problem might be mass distribution of vitamin A capsules to pre-school children, nutrition rehabilitation centers, vitamin therapy for the ill child, the newborn, and socially deprived.

Essential to the next step of implementation and testing of these plans is the mobilization of resources into patterned forces strong enough to accomplish the goal.

AFOB Experience

Although there are a number of vitamin A deficiency prevention programs being carried out, I will use the AFOB experience to specifically demonstrate ways in which the jigsaw pattern of resources have been put together to achieve results. Most efforts are directed on a project basis, country by country.

In Indonesia, for instance, the government first requested WHO to assist the Indonesian Nutrition Institute and Ministry of Health in confirming the extent of the problem and planning for a solution. They decided to initiate a two year pilot project for distribution of the vitamin A capsule biannually to children aged one to four in 20 sub-districts in Java. The Ministry of Health then tangibly expressed this preventive policy approach by appropriation of funds and designation of certain government personnel to carry out the program. Under the guidance of a coordinating committee representing the different sectors of health, nutrition and the various geographical levels of authority the plan was activated. UNICEF agreed to provide the vitamins, some vehicles, and other equipment. AFOB agreed to provide the evaluation of the pilot program, the findings of which will be crucial as a basis for the critical decision as to whether at the end of the two year demonstration period to expand the program for universal coverage of the country. The evaluation consists of the clinical assessment of the effectiveness of the dosage in reducing the incidence of blindness, and the analysis of the delivery system to determine the efficiency and extent of coverage of the target population. AFOB is providing technical assistance in the form of an evaluation team, part Indonesian and part foreign, paid for with financial resources sought from public and voluntary sources.

The vitamin A deficiency prevention program in El Salvador offers another pattern of resources brought to bear on the problem. The

extent of the vitamin A deficiency in the population was initially studied and delineated by the regional Institute of Nutrition for Central America and Panama (INCAP) and the danger of blindness pointed up by an El Salvadorean ophthalmologist particularly expert and interested in the blinding disease of xerophthalmia. INCAP recommended that a long-term solution to the problem could be found in the fortification with vitamin A of the locally produced and marketed sugar, and offered the technology to accomplish this. The first essential step is legislation by the government. Since this process would take several years, AFOB offered in the meantime to assist in the planning for an immediate short-term measure of distribution of the vitamin A capsule biannually over a two year period and to provide the capsules (purchased through UNICEF). The El Salvador Government assumed full responsibility for the system of delivery of the capsules to all children between the ages one to six, initially distributing them as a part of a mass vaccine campaign. Since this was a new type of delivery, AFOB offered to join with the government in testing it for its effectiveness by providing a technician to design such a study and supervise its implementation by Salvadorean personnel. The financial resources to cover expenses for the vitamin capsules and those incurred by the evaluation but not covered by the Salvadorean Government, came from AFOB and the Spanish organization ONCE*. This joint collaboration came about through the policy and encouragement of the WCWB Committee on Aid to Developing Countries.

One more project example: The vitamin A deficiency problem in the Philippines has attracted the attention and concern of nutritionists and health personnel in that country. AFOB is serving as a catalyst to assemble a variety of interested bodies to pool resources to attack the problem on a large scale. A research project was initiated in one of the Islands under the auspices of Cornell University with some funds from WHO. The Catholic Relief Services, under the overall supervision of the Philippine Ministry of Health, is carrying out a program of supplemental feeding to malnourished children organized by the local dioceses. The supplemental food for this program is provided through the bilateral aid program of the U.S. Agency for International Development (USAID). The plan now is to distribute a vitamin A capsule every six months to the registered malnourished children as they are brought in for their monthly supply of food supplement. UNICEF has agreed to supply the vitamin capsules. The project is being developed under the leadership of the Philippine Government Food and Nutrition Research Center and a committee representing the various national and international health and nutrition interests. The program will involve governmental Ministries of Health and Agriculture, the University of Philippine Eye Research Institute, and local Maternal and Child Health Centers; the bilateral agency—USAID; the voluntary international organizations, Catholic Relief Services and AFOB; WHO and UNICEF; and the local priests and dioceses. In addition to its role in stimulating and planning the operation, AFOB will provide technical consultation and some financial assistance to the coordinated group

* Organizacion nacional de Ciegos, Madrid.

to test this untried delivery system. The distribution of the vitamin capsules will be targeted to identified malnourished children along with supplemental feeding. AFOB has obtained financial resources from the Hawaiian Lions Eye Foundation to help meet its initial commitment.

In none of these instances could AFOB or any one organization do-it-alone. The governments or local organizations have provided personnel and facilities, and in Indonesia, money. Supplies and technology were furnished by the international agencies WHO and UNICEF in Indonesia and Philippines, by the regional INCAP in El Salvador, and the bilateral governmental USAID in Philippines. AFOB, with its commitment and technology, was joined in its efforts by the voluntary agencies—Catholic Relief Services, the Spanish National Committee for the Blind, and the Hawaiian Lions Eye Foundation.

How To Do It

There is no magic formula for coralling resources to achieve goals in preventing blindness. There are certain guidelines which might be suggested and a sequence of steps which might be followed. It seems to be a truism that good programs attract resources. The real dilemma is how to draw on resources at the outset for the risk period of developing a program.

Whether on the local or national level certain knowledge is essential to the success of a venture:

- * knowledge of goals and clarity about the program strategies most likely to achieve them
- * knowledge of experience, research, and alternative approaches to meeting the problem drawn from other countries and sources
- * knowledge of the capabilities at hand to meet the problem within the constraints of practicality and reality
- * knowledge of what resources will be needed and the amount, extent, and nature of each
- * knowledge of where such resources might be found
- * knowledge of the policies and personalities connected with the various resources.

The Global View

There is no need here to repeat the awesome prospects of the predicted escalation of the numbers of blind in the foreseeable future, as the population itself doubles in size. As has been pointed out, resources to provide care, protection, and services to the blind, already woefully inadequate, will fall far short of meeting even minimum need. Since approximately three quarters of blindness is estimated to be preventable or curable it is both morally and economically imperative to direct action to that end.

Since this problem is global, although inversely related to the degree of "development" of the country, the efforts must be proportionate

with bold and imaginative approaches to its solution. International agencies, governmental, inter-governmental, and voluntary, must increase their commitments, technology, and funds through higher priority to prevention than now exists. Organizations and governmental bodies at the regional, national, and local level must develop commitment followed with direct action, drawing on existing resources and seeking new ones. It will take a massive effort at every level, particularly the combined efforts of many small organizations and individuals, if life with sight is to be assured to those who might unnecessarily face losing it.

THE ROLE OF THE OPHTHALMOLOGIST IN PLANNING PROGRAMMES FOR THE PREVENTION OF BLINDNESS

by Dr. Gunnar von Bahr, President,
International Association for Prevention of Blindness

Even if we do not know the exact number of blind people in the world—numbers between 10 and 20 millions are mentioned—we realize that it is appallingly high. We also know that it need not be so for a very great proportion of blindness could have been prevented. Such is the experience in many well developed countries, where many causes of blindness have been eradicated or at least have become very rare. This might be a comfort to mankind and above all a challenge to intensify the work to prevent blindness in all its implications. I mean by this that we have to regard not only the possibilities to prevent the development of blindness from diseases or accidents but also those to prevent blindness to remain permanent when there are methods to restore vision.

With "blindness" we generally mean lack of useful vision but we do not forget that also weakightedness also involves severe problems that have to be solved in the same way as those of real blindness.

The causes of blindness are manifold and of so varying nature that "blindness" is more of a social than a medical conception. This does not, of course, mean that it is of no medical interest—on the contrary its prevention is of very great interest to medical men but not only to those dealing with the eyes, ophthalmologists, but also to members of many other medical specialities.

As the causes of blindness are of so many differing kinds, which have to be combatted in different ways, the first thing to do is to procure a good survey of the frequency and the causes of blindness prevalent in one region. The basic information has to be obtained by ophthalmologists who are able to diagnose the kind of blindness and its cause and also to judge if something can be done to restore the vision.

The possibilities to perform this task are very different in various regions, and I doubt that they are quite satisfying in any country. This is due to insufficient registration of blind people and lack of eye doctors. We must aim at having all blind people registered and examined at least once by an ophthalmologist. The registration could be done at a census, but experience has shown that this is insufficient. It should be completed by searching out the blind persons in a population by e.g. social workers. Those registered should be examined by an ophthalmologist. I realize that this is a Utopian scheme for most parts of the world. A practical method often could be to examine representative samples of the population, the inhabitants of certain districts or members of certain groups, e.g. schoolchildren, workers in industries, mothers coming with their children to Health Centers, etc. In such examinations doctors with special knowledge of eye conditions should take part.

Such surveys should be the basis for the planning of programmes for the prevention of blindness. As the causes of blindness differ so much, as do their frequencies in different regions, the programmes for the prevention must be very different in different countries. Due regard has also to be paid to the varying resources, in personnel, economy and cultural traditions. It may seem cynical and inhuman, but for practical reasons priority must often be given to actions against the most common causes of blindness to which simple, effective methods are available.

In large parts of the world general and local infections are still the most common causes of blindness. To the general infections belong small-pox, which is said to cause blindness in about 4% of those affected. This disease can easily be prevented by vaccination. Leprosy, which causes blindness in up to 30%, can nowadays be effectively treated, if treatment is begun in time, and the spreading of the disease can be prevented by general hygienic measures.

Syphilis is a rather common cause of blindness in children born of syphilitic mothers—in frequencies of 7-26%—and in those who have acquired the disease after birth, in later stages of the disease. This can be prevented by effective treatment of the infection at an early stage, not the least preventive treatment of future mothers.

Other general infections, measles, scarlet fever and typhoid fever, may be complicated by eye affections developing into blindness. This seems to be the risk especially when the children are in a bad general state, e.g. malnutrition. These diseases have to be combatted by general epidemiological methods, including vaccinations.

Rubella, which generally is a rather mild disease, can bring on severe malformations of the eyes of the offspring if a mother contracts the disease in the first three months of pregnancy. Recently one has developed a vaccine against this disease which should be given to young women who have not become immune to this disease before reaching the reproductive age.

Tuberculosis may have various ocular complications that can develop into blindness. The general campaign against tuberculosis will diminish this risk.

For all these diseases the main preventive work has to be done by others than ophthalmologists, but those will have to assist when the eyes have been affected and by ophthalmological treatment try to cure the ocular localization of the disease.

The most important general disease disastrous to the eyes is onchocerciasis, prevalent in Central Africa and Central America. Against this parasitic disease we do not yet know of any specific remedy that can be used without risk. It is, therefore, the main task to prevent the disease, which is spread by certain species of fly ("Buffalo gnat"). It is essential to eradicate this vector of the disease, but this is a difficult task as it breeds in oxygen-rich, running water. This work has to be led by entomologists and others and may meet political problems also.

Among the local infections bringing on blindness trachoma is the most common—the number of persons suffering from trachoma is estimated to be about 500 millions and of those blind from this disease

about 6 millions. This blindness can be prevented by effective treatment at an early stage. Curative actions may be performed in stationary clinics or in mobile ones, which systematically cover the regions where trachoma is prevalent. The curative work is also of high value for the prevention of the disease as it helps to eradicate the sources of the infection.

As the infection is spread from man to man directly and by means of vectors, such as flies, it is essential that other preventive methods also be used. This includes the education of people to adopt good personal hygiene—trachoma is more common in arid places—to avoid the use of common articles and actions that can transfer the contagion, and to develop the hygiene of the community, to destroy and control the breeding places of the flies, to provide water supply, etc.

There are also other local infections causing ophthalmias leading to blindness. What is said about trachoma will apply also to them. It has been pointed out that when the resources are limited the preventive activities should be concentrated to the seasons of the year when the infections because of climatic factors are most severe, e.g. when flies are breeding. The individuals affected should be treated so that the sources of the infections are decreased in number and the control of the breeding places of the flies should be intensified.

Malnutrition, especially lack of vitamin A leading to xerophthalmia and keratomalacia, is an important cause of blindness in some regions of the world, mainly among small children. It can be prevented by high doses of vitamin A at certain occasions, but the best would be to provide enough vitamin A in the common food.

Injuries of various kinds belong to the most common causes of blindness. Some occur in professional work, others in sports and play, others in violent actions. The ophthalmologist has to be observant as to the special causes and to give advice how to avoid them. Many accidents to the eyes can be prevented by adequate methods. When the ophthalmologist notices special risks in industries, in sports etc., he should instruct the authorities to prescribe adequate protection measures, even to propose adequate legislation. Sometimes he should initiate public information as to the risks of accidents with sharp tools and toys, explosives and caustic substances.

There may sometimes be reasons for him to inform the public of the risks of quacks and witch-craft to the eyes. It has also become necessary that he inform his colleagues of the risks to the eyes of certain drugs, including an excess of oxygen given to small premature children.

As retinopathy and other complications of diabetes mellitus have become one of the most frequent causes of blindness in many countries, it is important that regular ophthalmologic control of diabetics be arranged for. Even if we still lack sufficiently effective methods to prevent the loss of vision, the ophthalmologist can give advice as to the treatment of the disease and apply those methods that are and will be available.

Also, for the control of some diseases of the nervous system, good collaboration between ophthalmologists and neurologists and neurosurgeons has to be planned in order to prevent unnecessary blindness.

Many cases of blindness have their origin in prenatal influences and then the ophthalmologist would come too late into action. It is not, however, quite so. Very often the bad condition of the eyes is hereditary. The ophthalmologist can best observe this. He may perform or stimulate others to perform genetic studies, and he should take an active part in the work to give genetic advice and to promote legislation enabling actions such as sterilization and abortion to prevent the transfer of the blindness to future generations.

When it comes to idiopathic eye diseases causing blindness the role of the ophthalmologist is more obvious. Good ophthalmic care has to be provided for. The planning must include the education of a sufficient number of ophthalmologists and paramedical personnel for their assistance, as well as an adequate number of well equipped ophthalmic hospital departments and/or ambulances.

Even then it has to be considered that the prevention of blindness has different character for different diseases. Simple glaucoma and cataract are the most frequent causes of blindness especially among elderly people. Glaucoma generally develops slowly without any pains or obvious outer signs of disease, but the optic nerve will be more and more atrophic and cannot be restored. It is, therefore, important to diagnose this disease at an early stage, before the atrophy is advanced, when adequate treatment in most cases can prevent the final disaster. As increased intraocular tension is essential in this disease, it is often recommended to measure this tension in mass examinations of people above the age of 40-50 years. Such a screening, however, is not quite satisfactory. High tension is not the only sign of glaucoma, and the limit between normal and pathologic is not quite fixed. It is evident that the judgement has to be made by an ophthalmologist. It is at present being discussed by the specialists in this field, which methods shall be used for the early detection of glaucoma.

For the treatment of glaucomatous people one must plan for periodic ophthalmological control of their eyes for the rest of their lives.

In order to prevent people affected by senile cataract to remain blind we can operate. In the hands of a well-trained ophthalmologist, this is a rather simple operation which in uncomplicated cases gives a good result usually. I would say: in a country with well arranged ophthalmic care senile cataract should not be regarded as a cause of blindness. Of course, good organization is necessary for this purpose. The best is to have permanent ophthalmological hospitals in a sufficient number, but in some regions it has also proved useful to have temporary field hospitals where cataract extractions can be performed.

In many cases blindness depends on opacification of the cornea. Often, but not always, the sight can be restored by the transplantation of a good transparent cornea from an eye that can be taken from a recently dead person. This operation has to be done in a hospital. It has to be planned for the supply of good grafts for the transplantation. The best way to do this is to make it legal to remove the eye from a newly dead person without any previously obtained consent. So it is in well developed countries. A substitute for this is to organize eye-banks, which

requires much planning and more or less complicated equipment and arrangements.

Lastly, the ophthalmologist should point out that the cost of many activities for the prevention of blindness are small in relation to the costs of the education of the blind and the social care during many years with pensions and other aids to lighten life for those who are blind.

I think that this survey will give you an idea of the many different aspects that are involved in the prevention of blindness. Consequently the roles of the ophthalmologist are manifold.

To sum up: He has to analyse the frequency, the kinds and causes of blindness in his region.

On the basis of those facts he has to inform the authorities and the public and propose activities for the prevention of blindness. This will include education of doctors and paramedical personnel (assistants, nurses, opticians), school-teachers, and the public (by newspapers, television, films, etc), hygienists, administrators, politicians, etc.

He has to perform diagnostic work, including screening procedures, and curative work, which includes the planning of hospitals, ambulances, etc. He has to promote simple, effective methods with due regard to the practical—economic, administrative, traditional—conditions of his region.

He should stimulate everybody to perform what is possible to do in his field for the prevention of blindness and severe visual impairment.

Discussion

Delegates called attention to the specific problems of their regions: malnutrition causing xerophthalmia in Africa, onchocerciasis responsible for a 90 % blind population in a number of villages in Mali, lack of ophthalmologists in many developing countries and the need for sanitary education.

The results obtained through mobile clinics in India, Nigeria etc. for the medical or surgical treatment of the eye were emphasized.

The proposal to create a new agency for the prevention of blindness was received with considerable interest. After some questions as to how coordination of work was envisaged at the national and international level in order to ensure full cooperation with the new agency, it was unanimously decided to prepare a resolution for submission to the vote of the General Assembly.

REPORTS OF REGIONAL COMMITTEES

Thursday afternoon, August 8, 1974

Chairman, Dr. Charles Hedkvist, President WCWB

COMMITTEE ON AFRICAN AFFAIRS

by Dr. J. W. Cookey-Gam, Chairman

MEMBERSHIP

The Committee started with four member countries at its inauguration in New York in August 1964. These were Ethiopia, Nigeria, South Africa and Tunisia. I pointed out in my 1969 report to the Executive Committee of the WCWB in New Delhi, that it was necessary to stimulate work for the blind in the francophone African countries and also to provide in the WCWB Constitution for reduced annual subscriptions for countries with population below 10 million. On the former, the Secretary General of the WCWB in cooperation with France and Tunisia, has worked very hard to bring about significant and encouraging activities in those countries and the Constitution was amended to make it possible for smaller countries to avail themselves of the opportunity of membership of the WCWB. The Tunisian Seminar of October 1973 has gone a very long way in bringing more countries nearer the fold.

The present membership of the African Regional Committee is as follows:

Country	Representative
Ethiopia	Mr. Abebe Kabebe
Ivory Coast	Professor Souleymane Sangare
Kenya	Mr. Alex Mackay
Libya	Mr. M. A. Saud and Mr. M. I. Siala
Mali	Mr. I. Konaté
Nigeria	Dr. J. W. Cookey-Gam
South Africa	Dr. W. Cohen
Senegal	Mr. P. Fall
Sudan	Sayed Abdel Gadir El Safi
Tunisia	Mr. M. Rajhi
Zambia	Mr. F. Chirwa

Ghana and Egypt are represented by Associate Members.

MEETINGS

New Delhi:

The African Regional Committee met in New Delhi during the General Assembly on the 14th October, 1969. Only Kenya and Nigeria were represented and we had two observers from Nigeria and one observer from South Africa.

The following decisions were taken:

- (a) The Chairman to write to as many African countries as possible acquainting them with the existence of the WCWB and urging them to join in the campaign against blindness.
- (b) Assigned to Mr. Mackay of Kenya the responsibility of collecting materials, writing up and publishing a yearly Newsletter from 1970.
- (c) That the Second African Conference should be held in 1971 preferably in a francophone African country like Tunisia.
- (d) Appointed Mr. S. L. Watson, Employment Officer, South African Regional National Council for the Blind, to represent the region on the Urban and Professional Committee of the WCWB.

Actions were taken on all the decisions except the Newsletter.

Tunisia:

During the Tunisian Seminar, which was held from October 24-31, 1973, the African Regional Committee met on the 27th of October, 1973. All the African Delegates to the Seminar were invited to the meeting but only three members of the Committee attended the Seminar—Mr. I. Konaté (Mali), Mr. M. Rajhi (Tunisia) and Dr. J. W. Cookey-Gam (Nigeria) who presided. Apart from Mali, Tunisia and Nigeria, delegates (as observers) from Algeria, Tchad, Gambia, Ivory Coast, Sierra-Leone, Uganda, Libya, Niger, Zaire and Senegal participated most actively and effectively.

The following decisions were taken:

- (a) That for proper planning the statistics of the blind in Africa was vital. The Algerian delegate estimated that there were 60,000 blind in Algeria. Algeria explained that the law to render financial assistance to the blind has helped immensely in carrying out a census of the blind.
- (b) That although the developed countries are most willing to assist the developing countries, the latter should as much as possible also help one another and encourage exchange of experience and personnel.
- (c) That to assist the Chairman of the Committee, Mr. M. Rajhi should act as Executive Secretary to the African Regional Committee until the next General Assembly in 1974.
- (d) That realising that the biggest drawback of the Regional Committee is lack of funds, an African Mutual Aid and Solidarity Fund be established to help the work of the Committee.
- (e) That following the letter of the Secretary-General of the WCWB, personal contact should be made with the Secretary-General of the Organization of African Unity. Accordingly, it was decided that a delegate should be sent to Addis Ababa to contact the OAU Secretary General. Mr. Rajhi was so appointed and the Algerian delegate at the Seminar announced that his country would be responsible for the expenses of Mr. Rajhi.

The details about the African Fund are yet to be worked out this year at a 9-nation meeting in Tunis. Since it is unlikely that African member countries of the WCWB (who already bear the burden of their annual subscription to the Council and cost of sending delegates to General Assemblies) will be called upon to contribute obligatorily to the Fund, the only sources will be from private individuals, national and international organizations. This raises the question as to whether the African Committee, as an arm of the WCWB, can itself make such direct appeals for funds. It is my view that nothing should be done to duplicate the efforts of the WCWB and the African Committee.

COMMITTEE ON AID TO DEVELOPING COUNTRIES

At the Moscow meeting of the Executive Committee in May, 1972 I expressed the view that for the World Council to make an impact on particularly the developing countries of Africa, Asia and Latin America, it must get more and more involved with specific projects in these areas. It was clear that the WCWB could not in the foreseeable future have funds to embark on or assist in substantial projects in its member countries. The Executive Committee therefore set up an Aid Committee which will receive, analyse, advise and channel worthwhile projects from Organizations to national and international agencies which can render assistance in cash or kind. The achievements of the Aid Committee, in less than one year of its existence, is eloquent testimony of the role which such a body can play in the utilization of human and material resources for the benefit of the blind people of the world.

TUNISIAN SEMINAR—OCTOBER 24th-31st, 1973

Since the First African Conference on Work for the Blind held in Lagos, Nigeria, in 1966, member countries of the World Council for the Welfare of the Blind had looked forward to a second conference on African soil. The Tunisian Seminar was in a way a fulfilment of that expectation. The Seminar was sponsored by the European Committee of the World Council for the Welfare of the Blind, the National Union of the Blind of Tunisia in cooperation with the Government of the Republic of Tunisia, and the African Regional Committee of the WCWB. Although the Employment of the Blind on the African Continent was the basis of the Seminar, the theme was "Euro-African Cooperation in the Welfare and Promotion of the Blind".

The Seminar was opened on the 24th October, 1973, by His Excellency, the President of the Republic of Tunisia, Habib Bourguiba. The following countries were represented—France, Sweden, Switzerland, Denmark, United Kingdom, United States, Italy, Belgium, Federal Republic of Germany, German Democratic Republic, Algeria, Tchad, Uganda, Senegal and Zaire. UNESCO was represented by Mr. N. I. Sundberg, Programme of Special Education. Of the thirteen African countries that participated only three are members of the African Regional Committee. It was particularly satisfying and this trend, to my mind, was significant and augurs well for the future of the African

Committee. The Treasurer and the Secretary General of WCWB also attended the Seminar.

The papers presented covered Employment, Education, Prevention of Blindness, and Aid and Cooperation between the developed member countries of Europe and their counterparts in Africa. Member countries of the European Committee were anxious to explore areas of cooperation with African countries in the field of blind welfare and they expressed willingness to supply equipment to countries in most need, help in training personnel and in exchange of programmes.

This Seminar has succeeded in achieving two main objectives—firstly, to bring the French-speaking African countries nearer the fold of the World Council and, secondly, to emphasize the interdependence of national and international organizations in making maximum use of available resources in tackling the problems of blindness in all its facets. I wish on behalf of the African Committee to thank the European Committee and UNAT for promoting this Seminar and for the great success that was attained. Tunisia no doubt has set a pattern in organizing services for the blind, and the personal interest of the President of the Republic and his wife is noteworthy and commendable. May the spirit of the Egyptian TAHA HUSSEIN—a blind linguist, philosopher, educationist, and great Arabic scholar—who died on the 28th October, 1973 and was awarded the United Nations Human Rights Prize two days before, continue to inspire work for the blind in the Arab world in particular, and the world in general.

INTERNATIONAL COOPERATION

Cooperation between national, international and governmental agencies has done much to promote work for the blind in member and also non-member countries of the WCWB.

The French Ministry of Cooperation has trained Mr. and Mrs. I. Konaté from Mali to enable them to establish schools and other services for the blind. As a result of a UNESCO Fellowship the couple was able to visit Nigeria and Ghana to study facilities for the blind in those countries and they returned to Mali later in 1973. Mr. Mohammed Touré has also been undergoing training in France at the expense of the French Ministry of Cooperation and will be returning to Mali in 1974.

In the Ivory Coast plans are in hand by UNESCO, WCWB, Caritas-Switzerland also the Ivorian Government to establish facilities for the production of Braille, a school and a training centre for the blind.

Tunisia has been untiring in its efforts to help French-speaking and Arab countries. She offered eight fellowships and 500 Braille books to Libya and three fellowships and 500 Braille books to Morocco.

South Africa has made a donation to Bangladesh through the Committee for Aid to Developing Countries and a considerable donation was made to the Louis Braille Memorial Fund in 1972. Braille systems for Rhodesia and Malawi have been revised and books printed in the languages concerned, gratis.

Encouraged by the Niger delegate at the Tunisian Seminar, I wrote to the Head of State of that country about their participation in the

work of the World Council. I have been informed that a national body has now been formed in Niger and a few months ago a delegation of three visited the North Central State of Nigeria on a familiarisation tour of existing institutions for the blind. It is hoped it will be possible at a later date for a visit by this body to other States of the Nigerian Federation and other African countries.

PREVENTION OF BLINDNESS

Emphasis is being laid on preventive medicine in most developing countries and with the acute shortage of ophthalmologists and limited facilities in the few available eye hospitals and centres, efforts are being made to take treatment to people in the rural areas. Kenya for instance has increased its mobile eye clinic from one in 1964 to about five in 1969. In Nigeria the Federal Military Government on 9th February, 1973 launched four mobile eye clinics for services in four of the twelve States. It is the intention of the Government to commission one for each of the remaining eight States as personnel become available.

Members will be delighted at the news that the World Bank is launching a 20-year programme against river blindness in seven African countries viz. Dahomey, Ghana, Ivory Coast, Mali, Niger, Togo and Upper Volta. It is estimated that this dreadful eye disease has affected 10% of the population to be covered by this programme. Five countries—Britain, France, the Netherlands, West Germany and the United States—have joined the United Nations and World Bank in pledging 7,500,000 dollars for the first phase of the programme. Canada has now joined in this project and pledged to give \$500,000 per year for a period of 6 years.

Shortly after the Nigerian Civil War, the Royal Commonwealth Society for the Blind sent a team of experts to Park Lane Hospital in the East Central State of the Federation to mount intensive ophthalmic service. In addition to treating preventable eye diseases some corneal grafting was carried out successfully and this has raised the question of providing eyes locally for the future. A decree has now been promulgated permitting the removal of eyes from deceased persons and negotiations are going on between the Federal Military Government and the Christoffel-Blindenmission in the Federal Republic of Germany on the establishment of a national eye-bank. If this project succeeds, it may be possible not only to supply the whole country with eyes, but also some neighbouring African countries.

EDUCATION

In the last ten years there is happily a growing awareness in the Continent of the right of the handicapped, particularly the blind, to education, and this has not been by legislation.

Most African countries have now evolved and adopted a national educational policy in which special education forms an integral part of the plan. It is true to say that the blind generally have been more favoured than other categories of the handicapped and this to my mind is due to the untiring efforts of the thousands of devoted men and women

who have stood up for the blind and also the excellent performances of the blind themselves.

The question of trained personnel, equipment and accommodation still remains the major drawback in achieving rapid progress. Even with the best will in the world, the more advanced countries can only offer very limited admission for candidates from the African countries. The logical step therefore is for African countries to try to establish their own institutions with the help of experts from the more advanced countries. Teacher-training colleges and institutes of education in institutes of higher learning have an important role to play in this regard. The Institute of Education of the University of Ibadan, in co-operation with the Federal Ministry of Education and the Nigerian National Advisory Council for the Blind, is reactivating a course for the training of teachers for the physically handicapped, including the blind, at the commencement of the 1974/75 Session.

The regular running of workshops for teachers of the blind will go a long way to raising standards in technique and methodology. It is pleasing to know that a course in mobility, mathematics, braille and use of aids is being arranged in Nairobi, Kenya, this Summer by an ICEVH team and the Government of Kenya. I would like to see more of such cooperation between ICEVH and governments of member countries of the WCWB in particular.

Members will be pleased to know that the Federal Military Government of Nigeria is proposing to embark on a compulsory free primary education by 1975. If this happens, as no doubt it will, it will have introduced a new dimension in special education. Statistics have been very difficult to come by and I think the time is ripe, provided we get the much needed support of the OAU, for a comprehensive survey and study of special education in the African Continent.

VOCATIONAL TRAINING, REHABILITATION AND EMPLOYMENT

Emphasis is shifting from traditional crafts to agriculture and industrial placement. The success of the present trend will depend in large measure on the content of the education given to blind children and adolescents. In an age of science and technology the blind must be given every opportunity of acquiring the knowledge and the skill which will fit them for the changing patterns of this day and age. Faced with acute food shortage in the world, especially in the developing countries, the answer seems to be in mass production of food by introducing mechanized farming. What chances have the blind in the present scheme of things? If the blind cannot themselves produce the food, they can perhaps form cooperatives to market agricultural products.

Most African countries are fast industrializing and this should offer greater opportunities for the blind. The vital link is the Placement Officer and I am not sure that this aspect of training has received recognition in the developing countries. In a world of unemployment and under-employment, the blind and other handicapped should receive special attention. It is necessary for employment exchanges to make

provision to look into the special needs and circumstances of the disabled generally. Each country is to look into the possibility of using legislation to enhance the dignity of its handicapped population.

ACKNOWLEDGEMENTS

This report will not be complete without expressing my gratitude and appreciation to the South African National Council for the Blind—through Dr. W. Cohen—and the Union of the Blind of Tunisia through Mr. M. Rajhi, its Secretary General, for their effort in keeping in regular touch with the Secretariat of the African Regional Committee; The Secretary General of the WCWB, Mrs. M. Cowburn, for the wonderful cooperation and encouragement and excellent liaison; and last, but not least, the Nigerian National Advisory Council for the Blind which has voluntarily, since the creation of the African Regional Committee, accommodated and offered secretarial facilities including cost of stationery and postage.

COMMITTEE ON ASIAN AFFAIRS

by Hideyuki Iwahashi, Chairman

Membership

Since the Fourth General Assembly in 1969, Nepal became affiliated to the World Council as a full member and the Philippines joined us as an Associate Member. On the other hand, Pakistan failed to pay the membership fee for three years and was removed from the membership list. At present, eight countries (India, Indonesia, Japan, Korea, Malaysia, Nepal, Singapore, Sri Lanka) are the Representative Members on the Committee and four countries (Hong Kong, Philippines, Taiwan, Thailand) are the Associate Members. In addition, the rules of the Asian Committee admit the affiliation of countries who cannot become members of the WCWB, because of financial reasons, as "observers".

Communication

The Chairman's Letter was issued twelve times during these four years and the Committee's magazine "The Asian Blind" was issued five times.

Activities

1. **Prevention of Blindness project:** In accordance with the resolution of the New Delhi Conference, the Asian Committee decided to emphasize the urgent need for prevention of blindness and approved it during the Moscow Executive Committee meeting. The Chairman made an appeal through the newspapers, TV and radio in Japan and the Association for Ophthalmic Cooperation to Asia (AOCA) was formed by the Japan Ophthalmologists Society and the Osaka Ophthalmologists Society; the Chairman of WCWB Committee on Asian Affairs was elected as President. After making surveys, Nepal was chosen as the

first recipient of the services and with the help of the Japanese Red Cross Society, two ophthalmologists, cash to the value of US \$2,000, medical instruments and medicine equivalent to US \$8,300 were sent from Japan to Nepal. There will be several eye camps in various parts of Nepal from January to March 1974.

2. **Fourth Asian Conference on Work for the Blind:** Asian conferences, from the first held in Tokyo in 1955 until the third in Manila in 1968, have always been initiated by AFOB and RCSB. However, it was decided that as from the fourth conference, the Asian Committee should take the initiative and the Fourth Asian Conference was held in Bombay from December 2 through 7, 1973. Independence and mutual cooperation were particularly emphasized and employment and placement of the blind were discussed earnestly. It was a red-letter event that New Zealand and Australia attended the Conference as coopted members. Broad cooperation and development between these two regions is to be expected in the future.

3. **Iwahashi Prize and Hayakawa Fund:** To perpetuate the name of the late Takeo Iwahashi, who was the first to promote the idea of an Asian Conference, the "Iwahashi Prize" was created to commend long-serving workers for the blind in Asia. Mr. Tokuji Hayakawa, President of the Hayakawa Sharp Electronic Company, offered to make the first contribution to establish the Fund, the income of which will be given as a cash award to the winner with a scroll.

4. **Asian Fund:** To strengthen Committee activities, it was proposed to set up the Asian Fund to which all members should contribute a certain amount of money every year. The funds will be administered by the Asian Committee.

5. **Other matters:** To coordinate mutual cooperation among the member countries, a survey giving full details of offers and needs will be made during March, April, May, 1974 by the Chairman. There has been no outcome of the negotiations with the People's Republic of China but Dr. Charles Hedkvist visited this country after the Bombay Conference to see the situation there.

The future plans of the Committee are to promote mutual cooperation, the prevention of blindness and staff-training. There are urgent needs in the Asian region in these fields and it is eagerly hoped that positive advice and guidance will be given by WCWB, the UN agencies and international agencies for the blind.

COMMITTEE ON EUROPEAN AFFAIRS

by Mr. S. Jensen, Chairman and Dr. H. Pielasch, Secretary

The growing call for international cooperation is a characteristic of our time and applies equally to cooperation between nations and smaller groups and, no doubt, also to the field of welfare for the blind. International exchange brings us closer to the results accomplished by our friends. It is likely to focus our attention to forthcoming problems and will help us to find common solutions.

All our national member countries have come out in support of international cooperation. They are prepared to organize meetings, seminars, and other events and to bear all or some of the expenses involved. Such willingness deserves high appreciation.

The ERC General Assemblies and their new nature

The regular General Assemblies which took place in 1970 in Copenhagen, Denmark; 1972 in Berlin, GDR; and in 1974 in Moscow, USSR, have proved to be particular highlights in the history of ERC.

Quite a number of issues were discussed at the Copenhagen General Assembly, among them employment of blind physiotherapists, lawyers, teachers, and factory workers as well as technical aids and appliances. The decision to expand the Presidium has proved to be of great value for future orientation. Svend Jensen, Denmark, succeeded Hans Cai Seierup in the office of President. Appointed Vice-Presidents were Marian Golwala, Poland; Ami Mermod, Switzerland; and Dr. Helmut Pielasch, GDR. The offices of Treasurer and Secretary were assumed by Achille Dyckmans, Belgium, and Dr. Alfons Gottwald, FRG, respectively.

In 1972 the General Assembly met in Berlin, GDR. The participants decided to set up commissions for braille, technical aids, and rehabilitation, a resolution of great momentum. They reinforced their demand for improving the supply of technical aids, and they decided on collaboration in solidarity with the African Regional Committee. Professor Dr. Tibor Vas, Hungary, was elected to succeed outgoing Vice-President Marian Golwala, Poland. Wilhelm Marhauer, FRG, was admitted to the Presidium as additional Vice-President. Secretary General Dr. Gottwald who gave up office for reasons of health was honoured in recognition of many years of distinguished service, and Dr. Helmut Pielasch, GDR, was elected his successor. While the Copenhagen and Berlin assemblies had still been dominated by national reports on achievements in blind welfare by the countries concerned, Moscow in 1974 turned out to be a forum of discussion of highly topical issues, such as integration of the blind into society, aims and methods of elementary rehabilitation, sports relations in the blind community, as well as aspects of social, medical, and cultural services for the aged blind. This change, in fact, does express growing maturity of ERC activities, enabling it to come to grips now with topical issues and assisting in preparing high-level decisions for the welfare of the blind.

International conferences in Europe

Several specialized meetings were called on the initiative of ERC in the period under review. These were the European Seminar on the Employment of the Blind in Brussels, May 1973, the European Braille Conference in Oslo, September 1973, the first Technical Conference in Berlin, November 1971 and the second in March 1974 in Stockholm. The conferences were organized by the respective commissions attached to the ERC Presidium, but all organizational aspects, including sizeable expenses, and participation of the public were settled thanks to active

support provided by the organizations of and institutions for the blind in Belgium, Norway and Sweden.

All meetings were followed by distribution of the proceedings or other publications and the results were submitted as recommendations to the Presidium of ERC. These specialized conferences assisted in relieving the ERC General Assemblies from excessive specialist problems and information. Additional events were organized on the initiative of a number of countries:

The All-Russia Society for the Blind invited experts to the International Conference on Employment of the Blind in Electronic Data Processing in November 1972 in Moscow. The Blinden-und-Sehschwachen-Verband der DDR played host to the International Symposium in Berlin in May 1972 on Questions of Blind People having Graduated from Universities or Training-Colleges. The ICEVH Conference was called by our Spanish friends in Madrid, July-August 1972. France was the sponsor of two important events: Representatives of numerous countries gathered in Paris on September 7, 1972, to commemorate the 20th anniversary of the transfer of the remains of Louis Braille to the Pantheon; a seminar on the Rehabilitation of the Newly Blinded took place in Marly-le-Roi, France in December 1973.

In summarizing the decisive elements of all these events, one should underline primarily that, in addition to other results, an important contribution was made to strengthen the spirit of cooperation and joint action for effective solution of the problems in hand.

Support was given to a Euro-African Seminar on Cooperation and Welfare of the Blind in Tunis, October 24-31, 1973, in compliance with a resolution adopted in 1972. The ERC Presidium was present and it will make every possible effort to continue what has been started so promisingly.

Information within the framework of ERC

International events are excellent means to promote the flow of information between members, not to speak of plenty of individual contacts often established at such events.

An important medium of information for member countries is the "Review of the European Blind", published by the Secretariat of ERC. Members receive the copies they desire free of charge, as the Blinden-und-Sehschwachen-Verband covers the expenses. All contributions are printed in English, French, Russian and German. The journal is to be a forum of the blind community and this is being accomplished indeed, by the competent contributions of our Members. All affiliated organizations of and institutions for the blind in Europe have been requested to provide more topical information so that the journal may fulfil more effectively its purpose.

Further sources of information are evaluations of surveys. Two surveys were conducted in the period under review, one about the work of printing shops and libraries for the blind and one about the supply of technical aids. The results obtained from the former were evaluated at the Braille Conference in Oslo and detailed information was published

in the columns of the "Review". The results recorded from the survey on technical aids were submitted to the Stockholm meeting and will also be published in the "Review".

Forms and Methods of Management

The Presidium is the leading body between ERC General Assemblies. Its members meet twice a year to review progress reports following General Assemblies, the activities of the Secretariat and further action on which to make decisions. Such approach has been found to secure continuity of action. Every one of the Vice-Presidents has been given a specific responsibility—an approach that has yielded favourable results.

The Presidium of ERC has established the "Louis Braille Medal" in recognition of distinguished services in the international and especially in the European field of blindness on the occasion of the 20th anniversary of the transfer of Louis Braille's remains to the Pantheon on September 7, 1972. For the first time, this gold medal was conferred at the General Assembly in 1974 in Moscow.

The commissions attached to the Presidium have added considerably to the overall efficiency of ERC. They serve as advisory bodies on braille, rehabilitation and on technical aids. Seven members make up a commission. They provide smaller countries and organizations with the opportunity of joining in international activities and promoting multi-lateral exchange of experience.

The ERC Presidium will have to ensure that activities of the commissions are based on long-range planning, the specialists having to provide the necessary conditions. These criteria being met it will be possible to prepare international events well in advance for the benefit, no doubt, of organizers and of those responsible for the quality of the papers. Commission work will also help to increase the number of available experts having international experience. At this stage, we have to extend a word of gratitude to all member countries, who actively backed the commissions by sending experts, covered travel expenses, and provided facilities for meetings.

Relations between ERC and World Council

The present position regarding collaboration on the European level has prompted us to submit some considerations on the relations between ERC and the World Council.

A statement in the report submitted by ERC to the WCWB General Assembly in New Delhi in 1969 spoke of too long a distance between individual member countries and WCWB, which may weaken the sense of membership. The Regional Committee, however, served as a link between individual members and the World Council. This statement holds good with no restriction in 1974. What are the possibilities of WCWB obtaining more influence in each country concerned? What can be done by WCWB to speed up the process of international guidance or exchange of experience both between neighbouring countries and nations of an entire region? Realistic assessment will show that the inherent levers of WCWB are short but extensible at regional level. The

Regional Committees are well acquainted with the situation and, therefore, can influence spontaneously developing forms of exchange. The role of the Regional Committees has to be more clearly defined in the Statutes of WCWB if the latter intends to intensify its support for each of its member countries.

Conclusions

1. Effective leading bodies should be established in all regions to promote bilateral and multilateral exchange, to assist in collaboration between experts and to organize joint events open to all member countries of the region concerned.

The exchange of information and experience should increasingly stress the importance of such topics as rehabilitation and employment of blind persons.

2. Continuity of action in a Regional Committee will depend to a great extent on regular meetings at which members report on their own specific activities. Transferring specific responsibilities to each member of the Presidium has worked well.
3. The commissions for braille, rehabilitation, and technical aids, all attached to the ERC Presidium, have yielded good results. These commissions facilitate favourable conditions for involving many national organizations through their own experts in international activities, as well as in long-range preparations of international events.
4. Continuous flow of information has to be secured by the Presidium as an absolute necessity to effectively guide each of the member countries. Information meeting the requirements of a country will stimulate its willingness for collaboration. Great benefit can be derived in this context from a journal, such as the "Review of the European Blind".
5. The ERC Presidium recommends against the background of its own experience in Europe that WCWB should pay more attention to the work of the Regional Committees, since the latter are the cornerstone of the World Council. The World Council should provide increased guidance to the Regional Committees, since specific and concrete activities are feasible foremost at the regional level. This increased attention should be combined with adequate consideration of the requirements of the Regional Committees in the WCWB Constitution.

COMMITTEE ON INTER-AMERICAN AFFAIRS

by Mrs. Dorina de Gouvêa Nowill, Chairman

1. COMPOSITION OF THE COMMITTEE

Since its nomination at the Fourth General Assembly in New Delhi, two members resigned: Mr. Allan Aaron (Trinidad) and Dr. Luiz Calderon Valle (Peru), both in 1972. Two new members were appointed to replace them, Mr. R. J. d'Abadie and Cel. Francisco Garcia Romero, respectively. In 1973, Cel Romero was replaced by Mr. Carlos Zagarra.

At present, the Committee has the following composition:

Chairman: Mrs. Dorina de Gouvêa Nowill, Brazil

Secretary: Dr. H. Pradilla Cobos, Colombia

Members: Mr. R. J. d'Abadie, Trinidad

Dr. Manuel Rodriguez Cardenas, Venezuela

Mr. A. N. Magill, Canada

Mrs. Elisa M. de Stahl, Guatemala

Mr. Carlos Zegarra, Peru

Dr. M. Robert Barnett, U.S.A.

2. MEETINGS

The Committee on Inter-American Affairs had no opportunity of meeting collectively during this period, due to the impossibility of some members to participate in the two meetings which were convened. The first meeting was held in Bogota on September 8, 1971, at which Dr. M. Robert Barnett, Dr. H. Pradilla Cobos and Mrs. Dorina de Gouvêa Nowill were present. As the date of the meeting coincided with two other international meetings—the Latin American Conference on Education of Blind Youth, sponsored by AFOB, and the Constitutive Assembly of ADEVIA (Ibero-American Association of Braille Presses)—delegations of non member countries which were in Bogota participating in these conferences were invited to attend our meeting as observers. The programme included topics of general interest and specialists were invited to discuss them. At the closing session the following recommendations were submitted to the plenary session and unanimously approved:

1. Creation of a Latin American Association for Scientific Education of the Visually Handicapped, constituted by specialists in education and rehabilitation and by every other qualified professional. The main objectives of the Association are: congregation of specialists; coordination of the Latin American policy towards the welfare of the blind; and general promotion of employment opportunities for the visually handicapped.
2. Blind or partially sighted persons must not be considered as "invalids". Depreciative words or phrases regarding blind persons must be suppressed.
3. Recommend to all Latin American countries the unification of their programmes for the visually handicapped.
4. Recommend to all countries of Latin America the affiliation to the WCWB.
5. Emphasize the necessity of obtaining official cooperation from Latin American countries' governments for the production and distribution of equipment, books and didactic material to the visually handicapped. International organizations, such as the UN, UNESCO, etc., regional Lions Clubs and other similar organizations should also be contacted. Write to all countries that still did not concede exemption of duties for the import of books, didactic material, machinery, etc. stressing the importance of the free circulation of such material.

6. Recommend that an editorial programme be established regarding large type books and texts of all kinds, both in Spanish and Portuguese.
7. Any cultural or scientific programme to be sponsored by the WCWB must be elaborated considering the basic conditions of each country and the possibilities of international cooperation, in order to obtain:
 - (a) A well planned system for better profiting from the existing resources of each country, aiming at its scientific and technological development.
 - (b) Satisfactory results regarding the rehabilitation of the blind and his integration in society.
 - (c) The adoption of medical and sanitary measures concerning the prevention of blindness.

Such programmes should be included in the development plans of each government and its execution could be undertaken with the cooperation of national and international agencies interested in the welfare of the blind.
8. Recommend the Executive Committee to accept the invitation of the Brazilian Government to the WCWB to hold the next World Assembly in Brazil.

The second meeting took place in Moscow on May 21, 1972. The following members were present:

Dr. M. Robert Barnett, Dr. H. Pradilla-Cobos, Mr. A. N. Magill, Mrs. Elisa de Stahl and the Chairman.

Both the report of activities of the Committee and the minutes of the Bogota meeting were approved by all the members. Special emphasis was given to Recommendation No. 8 and to the invitation of the Brazilian Government for the next World Assembly of WCWB to be held in Brazil.

3. ACTIVITIES OF THE COMMITTEE

Since the Bogota meeting, when important resolutions were approved, the achievement of these targets has been our main concern. In spite of the difficulties we had to face, we feel that our action contributed to the improvement of the means of communication and the interrelation among specialized institutions in Latin America, as well as to the unification of some of their programmes for the visually handicapped in the educational area. We regret that some recommendations could not be implemented. In addition to these activities, the Committee is engaged in compiling a list of specialized institutions in Latin America and in collecting data to ascertain the actual needs of the braille presses of this region. A brief description of our activities follows.

3.1 Latin American Association for Educators (Resolution No. 1)

This recommendation was unanimously approved by all participants of the meeting and a Provisional Committee was nominated to draw up a draft constitution. However, as members of the Committee, due

mostly to financial reasons, had no opportunity to gather and study the rules for the new Association, this matter was temporarily left in abeyance. But the need of such an Association basically persists. We can feel in all teachers and specialists genuine interest in joining an international association of educators which would give them an opportunity of keeping up to date with new methods and techniques. Therefore, when the Chairman of ICEVH requested our opinion on the idea of accepting individual memberships in ICEVH, this suggestion seemed to us an adequate solution to the problem. Dr. Kenmore was contacted in this regard and we proposed to convene a meeting of specialized teachers in São Paulo during the Fifth World Assembly.

3.2 Unification of Programmes (Recommendation No. 3)

In order to attain the unification proposed by this recommendation we have primarily concentrated upon measures aimed at promoting the unification of the Spanish and Portuguese contracted Braille and Braille mathematics. Two meetings took place for this purpose: The Ibero-American Seminar on Communication and Mobility, São Paulo, Brazil, December 1972, and the Ibero-American Conference for the Unification of the Braille System, Buenos Aires, Argentina, November 1973. The most important aspects of the proposed unification were discussed by specialists from Central and South American countries, as well as from Spain and Portugal. National Commissions were formed in each country to study their own problems in the light of the unification at international level. Serious controversy arose about Braille mathematics and to settle it specialists from Spain, Argentina, Brazil and Mexico will hold a special meeting in Mexico in the near future. In spite of the difficulties, there is a general tendency towards the definitive unification of the Braille system in this linguistic area.

3.3 Membership (Recommendation No. 4)

In all these years in which we participated in the Committee on Inter-American Affairs, we always regretted that such an extensive geographic area as Latin America had not a larger representation in WCWB. In order to improve this situation and to stimulate greater interest in WCWB activities, we contacted all leading agencies for the blind in Latin America, either personally or by correspondence. Informal meetings were held with delegations of non-member countries whenever we met at international conferences or seminars. We invited all foreign delegations which were present in Bogota to participate in the first meeting of our Committee. with the purpose of giving them an opportunity of getting better acquainted with WCWB objectives and activities all over the world. Official authorities in several countries were also approached in this respect. In Argentina we had the occasion of interviewing personally the Vice-President Mrs. Maria Stella Martinez de Peron, and the Minister of Social Welfare, Dr. José Lopez Rega.

To our regret, however, notwithstanding the interest shown by some countries, such as Uruguay, Argentina, El Salvador, Panama and Mexico, financial reasons and political instability in certain areas prevented us from succeeding in our efforts toward increasing Latin American representation.

3.4 Editorial programmes (Recommendation No. 6)

We should like to mention the valuable cooperation we received from ADEVIA (Ibero-American Association of Braille Presses) in our contacts with Braille presses and libraries in this area. Considering that the present production of books for the visually handicapped in Latin America is insufficient to meet the great demand, in an effort to minimize the shortage of reading material ADEVIA suggested to all members several measures towards increasing the production of braille presses, through the improvement of present operational conditions, modernization and automatization of the presses. The necessity of studying and adopting new processes of distribution of books was emphasized, in order that a greater number of persons can benefit from the existing books.

May we further mention the General Catalogue of Braille Books in Portuguese and Spanish which is being prepared by ADEVIA, including all titles published in both languages.

At the II General Assembly of ADEVIA, which was held in November 1973 in Buenos Aires, it was strongly recommended to all members to adopt the International Cataloguing Rules, aiming at the unification of all existing systems. This recommendation applies to all kinds of books—braille, large type and talking books.

3.5 Fifth General Assembly (Recommendation No. 8)

According to this recommendation, we had the honour to submit the official invitation of the Brazilian Government to the consideration of members of the Executive Committee during the meeting held in Moscow in 1972. The invitation was accepted.

3.6 Register of Institutions

When preparations for the Fifth General Assembly started we felt the necessity of having a complete "dossier" of specialized institutions for the visually handicapped in Latin America, either official or private, and we entered into contact with institutions already known in each country. It is our intention to keep this register as up to date as possible, through periodical contacts, and we take pleasure in placing it at the disposal of all who may be interested in such information.

4. SPECIALIZED LITERATURE

In view of the great demand for specialized literature in Spanish and Portuguese, we requested the Foundation for the Book of the Blind in Brazil to collaborate with us in the translation, printing and distribution of books on education and rehabilitation. This matter was discussed in the meeting of Ibero-American braille presses, recently held in Buenos Aires, and it was recommended that the American Foundation for Overseas Blind should be consulted on the possibility of the New Outlook for the Blind being published in Spanish. In this respect, we should like to mention the active collaboration of AFOB Regional Office in Argentina in publishing Spanish literature.

5. NEWSLETTER

The arrangement that had been made in 1966 with Dr. Luis Saenz, Director of the Rehabilitation Centre of Lima, Peru, and Foundation for the Book of the Blind in Brazil, regarding the Spanish edition of the Newsletter, was discontinued in October 1970 following the death of Dr. Saenz. In 1972, during the Executive Committee meeting when this matter was being discussed, Dr. Ignacio Satrustegui proposed to have the Spanish edition published and distributed in Spain. His offer was gratefully accepted.

6. AID PROGRAMME

In this five-year period, we tried to survey the needs of the developing countries in the area belonging to the Committee, which represents two-thirds of the American continent. With the exception of Canada and the United States, all other countries face problems of under-development. As a result, special education has been neglected in many places and agencies for the blind, mainly due to lack of financial means, shortage of technical equipment, didactic material, books of all kinds and, above all, of specialized teachers and instructors. There is in all countries a growing need for educational facilities, such as training programmes, specialization courses and opportunities in which professionals of both the advanced and the developing countries can exchange views and compare experiences.

Within our limited possibilities we tried to promote regional co-operation and better relationships with all Latin American institutions.

As, according to the survey, priority must be given to the educational area, we received with pleasure the invitation of the Secretary General to participate in the Unesco Gift Coupon Programme. Projects in thirteen countries, all of them involving books and equipment for the blind, have been selected for the current programme. May we suggest that campaigns like this be stimulated by WCWB on a wider scale in the future.

7. SUGGESTIONS

At the end of another period of service to the Committee on Inter-American Affairs, we should like to make some comments regarding future activities of the Committee.

In the first place, to meet its responsibilities, the Committee must have a basic structure and a well-planned organization scheme. It is also most important to find an adequate way of financing the work of the Committee. With a firm budget of its own to count on, working programmes can be outlined and members will have the opportunity to meet and discuss together their specific problems.

May we further suggest that, with the help of Unesco, WHO and other international organizations, research should be made to ascertain the effective needs of the education and rehabilitation services in Latin American countries and that a programme of technical assistance, based on such research, should be set up in order to meet the specific needs of each country, according to their different stages of development.

At the same time, we would suggest to the Committee on Prevention of Blindness to recommend to WHO, the International Association for Prevention of Blindness and other international agencies, the necessity of stimulating their activities in this region, through well-coordinated campaigns of enlightenment and short- and long-term programmes on prevention of blindness. According to statistical data published by UNICEF (source: Social Affairs Dept., Pan-American Union, OEA General Secretariat), Latin America has at present a total population of 280 million, 42% of whom are children under 15 years of age. At the rate of 450 per 100,000 inhabitants, there are now 1,260,000 blind people. If this blindness rate is not reduced by the end of this century, these numbers will increase to more than 2,700,000 blind persons out of a total population of 600 million inhabitants.

REPORT OF THE MIDDLE EAST COMMITTEE

by Mr. Abdullah Al-Ghanim, Chairman

Introduction

The efforts of the Kingdom of Saudi Arabia have for the last ten years been directed to the hygienic, social, educational and economic aspects of development and progress. Several universities and colleges as well as hundreds of schools, institutes and hospitals have been set up to cover the various cities, towns and villages.

The Kingdom has favoured the blind with great attention—so much so that eight institutes for the blind have so far been established where male as well as female students receive academic education together with vocational training. These institutes comprise 138 classes covering primary, intermediate, secondary and vocational stages. They are also provided with 22 vocational workshops where the making of tricot (knitted woollen fabric), weaving, carpet-making, wickerwork and the making of tools for cleaning are being taught and practised. Nine hundred and eighty-one male and female students joined the institutes and 322 male and female officials teach them and look after them. There are buses to convey the students to and from their institutes. The institutes are also provided with eight clinics. Moreover, each male and female student receives a monthly subsidy ranging between \$43 and \$57.

The Kingdom's services extend also to the neighbouring Arab countries. Scholarships are granted to some blind persons and teachers are sent at the Kingdom's expense to teach there. In addition, moral, financial and technical assistance is freely given.

The Establishment of the Middle East Committee for the Blind

The Kingdom of Saudi Arabia has participated in most of the world conferences, the majority of which I had the pleasure to attend representing my country. At the conference of the World Council for the Welfare of the Blind which convened in New Delhi, India, in the year 1969, the Executive Committee decided that a Middle East Committee should be set up and that its chairmanship should be entrusted to me.

After my return from New Delhi I submitted the matter to the authorities in our country for consideration. They welcomed the idea and, as soon as the approval of His Majesty King Faisal was obtained, His Excellency the Minister of Education Sheikh Hassan Ben Abdullah Al-El-Sheikh invited all the states of the region to hold a conference in Riyadh. Eleven states accepted the invitation and thus the First Conference convened from 3/4/1971 to 7/4/1971. The eleven states that attended the conference were Saudi Arabia, Qatar, Kuwait, Bahrain, the Yemenite Arab Republic, the Hashemite Kingdom of Jordan, the Syrian Arab Republic, the Arab Republic of Egypt, the Lebanese Republic, the Empire of Iran and the Turkish Republic. The delegates were, during the time of the convention, the guests of the Ministry of Education; the World Council for the Welfare of the Blind paid the travelling expenses of all the members to and from the conference.

The chief topics were discussed and the discussion resulted in 61 recommendations, all of which were graciously approved by His Majesty King Faisal. These recommendations have brought about several benefits to the blind, the most important of which has been the establishment of the Regional Bureau of the Middle East Committee.

The aims of the Regional Bureau have been to attend to the affairs of the blind, to give them more attention and care, to secure for them more gains and privileges, such as the reduction of their travel fares and those who might accompany them by air and by land in all the countries of the region to 50 %, the exemption of all their educational imports from customs duties, the extension of help to those among them who would like to continue their university studies and the awarding of scholarships to those who are talented.

The door to the Committee's membership has been left open so that other states may join, thus securing the cooperation of all and helping all to get benefit therefrom. The states that joined the Committee later were the United Arab Emirates, the Oman Sultanate, and Afghanistan, thus raising the number of the members of the Middle East Committee to fourteen.

Establishment of the Permanent Regional Bureau of the Middle East Committee

In accordance with Recommendation No. 55 made by the First Conference, I toured the member states to follow up the implementation of the recommendations already made by the First Conference and to discuss the establishment of the Permanent Regional Bureau in execution of Recommendation No. 51 and the setting up of an institute for the blind in the Gulf Area in accordance with Recommendation No. 57.

During my visit I felt sure that the authorities concerned were earnest and serious about the matters discussed and, after my return, we established the Permanent Regional Bureau which started its work at the outset of 1973, the Ministry of Education having given us a sum of money equivalent to \$110,000, together with a number of officials to start the work with as a preliminary step towards its establishment. Since then, the Bureau has become the connecting link between the member states on the one hand and the WCWB on the other, its chief

aims being to award scholarships to make educational researches, to derive benefit from international conferences, to raise the standard of services rendered to the blind, to coordinate relations, to prepare for conferences, to follow up recommendations, to exchange experiences, to extend assistance, etc.

The Second Conference of the Middle East Committee for the Affairs of the Blind

In compliance with Resolution No. 61, adopted by the First Conference and suggesting that the conference should convene every two years to consider and discuss whatever new deserving problems might present themselves, the Minister of Education invited the members to attend the Second Conference. The conference convened in Riyadh from 2/6/1973 to 9/6/1973, during which time the delegates were the guests of the Ministry of Education.

The delegates of all the member states, with the exception of the Arab Republic of Egypt, the Syrian Arab Republic and the Yemenite Arab Republic, attended the Conference.

Among the important items discussed were: the draft statute of the Bureau, the resolutions adopted by the First Conference and their implementation, the projects of the Bureau and its budget for the year 1973/1974. This budget amounts to \$1,181,000. Seventy-five per cent of this is being allocated to the projects of the Bureau. The chief of these are the setting up of the Bahrain Institute for the Blind of the Gulf Region, and the extending of assistance to the member states needing help to carry out programmes for the blind. Five states have assumed the whole burden of the budget, apportioned among them as follows:

1. Saudi Arabia	45 %
2. The United Arab Emirates	25 %
3. Kuwait	15 %
4. Qatar	10 %
5. Bahrain	5 %

(In addition to the donation of a building to Al-Noor Institute for the Blind of the Gulf Area.)

As for the states which have not contributed to the budget, the conferees have decided that yearly subscriptions ranging between \$3,000-\$50,000 should be paid to help offer some of the services to be rendered to the blind. The five states that have carried the burden of the budget have not only consented and paid their share on being notified, but have also decided to include the necessary funds in their budgets for the years to come.

The members of the Executive Committee, five in number, have also been elected, in accordance with the Bureau's Statute, by the Conference with His Excellency Sheikh Abdullah Mohamad Al-Ghanim as Chairman. The members elected represented Oman Sultanate, Bahrain, Kuwait, the United Arab Emirates and the Hashemite Kingdom of Jordan. This Committee has been endowed with extensive mandatory powers proportional to the importance of the work it has been entrusted with.

The Outstanding Projects of the Middle East Committee

The Bahrain Institute for the Blind of the Gulf Region has been inaugurated, starting its work at the outset of 1974. This institute has 150 male and female students, aged between 6 and 20 years. All of these are in the primary stage and, in the coming school year, the vocational stage for the adults among them will begin. All the requirements of living and education have been provided, the boarding-school system being adopted in the Institute. Besides, each male and female student receives a monthly subsidy of \$22 as pocket money. The students have been admitted to the Institute in agreement with Resolution No. 11, passed by the Second Conference of the Middle East Committee, according to the following distribution.

- | | |
|-----------------------------|-------------|
| 1. Oman Sultanate | 60 students |
| 2. The United Arab Emirates | 40 students |
| 3. Bahrain State | 30 students |
| 4. Qatar State | 20 students |

Four months before the Institute was inaugurated, a teacher-training course had been set up to train the staff of teachers who would teach in the Institute. Seventeen female teachers, all of them from Bahrain, were chosen to do the work.

The Regional Bureau, in cooperation with the organizations working for the welfare of the Blind, held on 4/3/1974 a seminar, in compliance with Recommendation No. 15 of the First Conference of the Middle East Committee. It was held in the Republic of Lebanon under the auspices of the President of the Republic on the occasion of the Blind's week with the object of creating eye-hygienic awareness. Mass media, cinemas, publishing houses and the press took part. The Regional Bureau showed some cinema and television films. Besides, it published numerous social and hygienic articles.

There are also some other projects included in the programmes that the Regional Bureau will carry out next year. Among these is the setting up of a fully-equipped Braille printing machine which can provide individuals as well as establishments in the region with embossed books and embossed cultural and educational magazines.

Another project is that of setting up workshops for young blind people, males and females. These will be established in the capitals of some of the member states and will handle trades and industries that the blind can manipulate with skill and dexterity, such as tricot or the knitting of woollen fabrics to be practised by females, and wickerwork and the making of cleaning-tools to be practised by males.

These are the chief achievements of the Committee during this short period of its age.

Finally, I must express in the name of the Committee, our deepest gratitude to His Majesty King Faisal for the sublime patronage he has accorded the Committee and the great attention he has been giving to it since it was established. Our warmest thanks are also due to His Highness Prince Fahd, Vice Prime Minister and to His Excellency Sheikh Hassan Ben Abdullah Al El-Sheikh, Minister of Education. I must also praise highly the cooperative spirit and responsive attitudes

of the governments of member states and the authorities concerned therein. Lastly, I must not forget to express my thankfulness and appreciation to the WCWB for its having adopted the Committee, for its continuous encouragement, for the confidence it has put in me by entrusting me with the chairmanship of the Committee and for the great service it has rendered to the blind all over the world.

PROFESSIONAL SESSION 2

Friday morning, August 9, 1974

RESEARCH AND DEVELOPMENT

Chairman: Mr. E. W. Christiansen, Director,
Royal New Zealand Foundation for the Blind.

COMMITTEE ON TECHNICAL APPLIANCES

by M. Robert Barnett, Chairman, U.S.A.

It would give the Chairman of this Committee a great deal of pleasure to report at this Assembly that he is proud of his Committee's achievements in these past 5 years—that is, since the last report to the General Assembly in New Delhi in 1969. He regrets that his report is such that he derives no such pleasure and, indeed, questions whether this Committee has been of any value except in name.

To report to the world at large that the World Council for the Welfare of the Blind has a Committee on Technical Appliances carries with it some rather significant implications. It implies that such a committee can evaluate and pass judgment on all technical apparatus that is designed especially for blind persons and, therefore, through the administrative processes of the World Council, may be recognized as a world authority. I must report that this has not happened and that such recognition does not exist.

If the blame for this negative report is to be placed at anyone's door, then it might be at his own as Chairman. Perhaps there has not been sufficient leadership on his part, and his successor might well find a different approach that will produce more effective results. Having said this, and in his own defense, the following is offered for the Assembly's and Executive Committee's serious study.

About two decades ago the ideal of such a committee was conceived by the WCWB leadership to be as described in the foregoing: a source of expert and authoritative guidance to scientists, instrumentation experts, designers, marketing specialists, and manufacturers. At that time knowledge about special devices for the blind was largely limited to those organizations which were the dominant non profit manufacturers of such appliances. Devices at the time were in the nature of such conventional appliances as braille printing equipment, braille writers, braille slates, and other devices for personal use such as braille watches, household aids, adapted vocational aids, and even the conventional mobility aid known as the cane.

The original Committee, therefore, through appointment of the President, represented a small number of manufacturers. As the years passed, and what is often called, "space age" technology emerged, dramatic new promises began to be heard about the possibility of the use of the computer and/or other basic technology in mobility devices and reading machines. There was an emergence of interest on the part of commercial industry in the potential market for automatic conver-

sion from typewriting to braille and in the area of concern about the partially sighted, the use of the principle of television for magnification devices now commonly known as CCTV.

In the Chairman's opinion, the original Committee, even as augmented after our meeting in 1969, is technically inadequate to deal with these new developments. Frankly, not one of us has a capability for technical judgment, nor do we have any sound assessment of the potential market for a new device in order to give a manufacturer guidance about his own investment.

Even if we as a group had such competency, the Committee has not achieved a procedure through which a particular device could be submitted, evaluated, judgment rendered, and announcement made.

Before the Chairman concludes with his recommendation, he should report that as a result of the Committee's recommendation, the *International Catalog, Aids and Appliances for Blind and Visually Impaired Persons*, was published under the auspices of the American Foundation for the Blind, at a cost of about \$15,000, in late 1973. It is interesting to note that the Foundation has distributed, at a nominal price, about 5,000 copies. We also have received constructive criticism about the content and format of this first edition and the Foundation will reflect such comments in an improved and updated edition in about three years, we hope.

The recommendation which follows is presented by the Chairman without prior review by the members of the Committee, as of the time of this writing. It will have been reviewed, however, at a meeting of the Committee which has preceded this assembly in São Paulo and this report, therefore, may be supplemented by other opinions following its presentation.

In short, since all committee appointments by the President are for the five year term, it is assumed that the existing committee is now terminated. It is possible that some or all may be requested to continue. The Chairman respectfully indicates that he is not willing to continue in that capacity. It is his suggestion that no new committee be appointed until the implications of our history of frustration and ineffectual activity be given careful consideration, and that no new committee be appointed until its authority and desired effectiveness can be better achieved in the future.

After twenty years of association with this committee as a member, and the last ten years as its Chairman, the Chairman is convinced that the WCWB should seriously consider the employment of a research specialist on its direct staff. It is understood, of course, that there are financial limitations that might be in the way of such an idea. Nevertheless, the Chairman believes that we should not restrict the vital role of the WCWB in this area of knowledge. The Chairman suggests, budget permitting, that an appropriate individual be retained on either full time or part time basis to coordinate all of the problems which are herein implied. Again, for the benefit of all blind people everywhere, the Chairman feels that effective action cannot be carried out by a person who is otherwise preoccupied with his primary obligation to one employer in one nation.

“RESEARCH RESOURCE NEEDS FOR THE FUTURE”

by Leslie L. Clark, Director,
International Research Information Service,
American Foundation for the Blind

Introduction

In the somewhat more than a decade since the International Research Information Service (IRIS) was established—with the endorsement and encouragement of the WCWB, let us note—a good many changes have occurred in the domain of research and development. No longer does one contemplate the “vast wasteland” of sensory aids that were technologically sophisticated, but ill suited to the uses that humans put them to, that we had occasion to complain of not too many years ago (1). Quite beyond the notable achievements represented by the serial production of two viable reading aids (the Optacon and the Stereotoner), a brace of high speed braille embossers (the Triformations LED-120 and the MIT/Braillemboss), and a very sophisticated mobility aid (the Kay Binaural Environmental Sensor), there has been a veritable explosion of research related to sensory impairment and blindness (2). Nor has basic research been neglected altogether. Important undertakings to understand mobility behaviors are now under way in Nottingham, England; Christchurch, New Zealand; Louisville, Kentucky, USA; San Francisco, California, USA; and in several other locations (3). Even evaluative research has enjoyed the beginning, at least, of that tender, loving care that alone will insure its adequate development (4).

I have been lucky enough to have been in a position during this period to see the trends over time in the development of most of the major themes in research of the last ten years. The decade began with what seemed almost insuperable obstacles to our understanding of the processes of reading, of mobility, and of the achievement of a satisfying style of life. It will close with a deepened understanding of reading behavior (5), a major advance in our understanding of mobility behavior (6), and a beginning of application of what we Americans regard as the “European” notion of rehabilitation—as the restoration of a style of life to the adventitiously blinded, and a creation of a satisfying style of life for the congenitally blind.

In the remarks which follow, I should like to sketch in brief those activities which I believe will contribute to these trends. If we are to shape actively the master trends of the future, then this effort will require all our cleverness, our best use of reason, and a firm will to succeed.

Documentation Research and Documentation Control

If there is any aspect of the world-wide conduct of research to which IRIS is sensitive, it is to the need for information in written form. Just as no one center—like IRIS—could hope to cope with all the corres-

pondence, all the personal visits, all the latest information on what researchers are doing, so no one information collecting and processing center can hope to cope with the immense variety and complexity of work now under way in our field. We have made some beginnings in the attack on the problem, and we have suggested some partial solutions to the problems of satisfying the "need to know" of researchers (7). And we hope to extend and revitalize our capability to cope with the many areas of research within the USA, in particular, by a loose network of information exchange among the major documentation centers there (8). We have also noted with very great interest the growth of other specialized information centers: for special education at Birmingham, UK; for rehabilitation in Leipzig and in Heidelberg (Germany); for rehabilitation legislation at the International Labour Office (ILO) headquarters in Geneva; and for technological development, in Stockholm, Sweden; and Coventry, UK. Nor is there a lack of a great and regnant cognitive structure under which we can subsume all these efforts, eventually, for the theoretically ambitious and sophisticated program of UNESCO to coordinate the world's information resources is at its beginning (9). For some time, it appeared as if information control was a convenience for the researcher and for the practitioner; we simply needed to know who was doing what so that we could minimize effort and keep the total costs of research and translation into practice as low as practicable. These motivations still obtain, of course; but gradually the awareness has grown that without some way to keep track of what has been done, what is being done, and what thinking informs the plan to put into practice what has been learned, we shall compound the mistakes of inept translation into practice, of inappropriate inference from investigations, of creation of a false sense of confidence in our understanding, that have obtained in the past. To the degree that we gain skill in undertaking research—both "basic" and "applied"—then to the same degree do our needs for appropriate information control, grow and deepen. I think the understanding is beginning to become widespread that the help of professionals is needed here, whether or not we use machine-aided techniques of information control; and this is a hopeful development, since it makes easier cooperation among documentation research centers in several parts of the world simultaneously.

An "armamentarium" of sensory aids

One of the healthiest developments of the last ten years has been the growing realization on the part of sponsors of research and development efforts that there is no single solution of "the mobility problem", or "the reading problem", or, indeed, any other "problem". We began to suspect the reasons why in an early evaluation of one mobility aid, in which some vaguely-defined "personality factor" appeared to play an important role in the acceptance or nonacceptance of a mobility aid (10). In some later work this insight was sharpened by our understanding that there are differences from individual to individual in their "tolerance for ambiguity". But the most important insight is that there is not now, nor is there ever apt to be, a solution for any one of

the "problems" facing blind and severely visually impaired persons that will be satisfactory to every user of a sensory aid.

There is something almost mystical about the search for "the" solution to the problem of transducing visual information for those not having vision into other sensory forms (tactile, auditory, and so on). And even highly experimental inquiries, like that of the introduction of electrical signals directly into the occipital cortex, have been seized upon both as "the" solution to the problems of blindness, and as a reason for blunting the development of more mundane solutions to the several problems of interacting with the world that blind and severely visually impaired persons face. Stated generally, the silent assumption appears to be "... if we can just wait a little longer, then X will be well enough developed that it will solve all the problems of Y." You may choose to insert for "X" any sensory device you might care to name; and for "Y" any of the "problems" that blind persons generally are supposed to have.

Yet we do have at our disposal the means and the knowledge to make a significant, even revolutionary, impact on these "presenting problems": by carrying out vigorously the transition from prototype to the hands of the consumer those sensory aids, both complex and simple, that have been developed to date. Decisions are required concerning what level of effort to invest in what sensory aids, of course; and for some the decisions are easier than for others, and for a few there are hardly any decisions to be made at all. If we were to make a concerted effort in the next decade to make available a range of sensory aids to aid the blind and severely visually impaired, we could make a literally enormous difference in the comfort, ease, and pleasure with which such persons could live and work in the world; the personal rewards of satisfaction and sense of accomplishment would be incalculable. Nor is the goal idealistic: we have the means and the capability to make such an effort, and to bring about such a result.

Gebrauchstechnik vs. Systemtechnik

The composer Paul Hindemith celebrated his creation of "workaday music" (Gebrauchsmusik) to distinguish it from the abstract and "absolute" symphonic literature. In borrowing and adapting his term, I intend "Gebrauchstechnik" to mean the range of "everyday aids", in contrast to "systems technology", from which complex sensory aids derive. Note that although the same research and development process applies to both, everyday aids require but a truncated version of the iterative process by which mobility and reading aids like the binaural spectacles and the Optacon are created and refined. Indeed, the differing length of the R & D process for each class of aids, and the widely divergent nature of the problems entailed in the production of each, leads naturally to regarding them as essentially separate matters. I think it time that we face the consequences of regarding these classes of aids as requiring comparably differing approaches in the development process. The most important difference between the two is that although the first class of aids could be developed within the "blindness system", using largely its own resources, the creation of the products of

systems technology absolutely requires going beyond that point, and implies the engaging of knowledge specialists in the university, the research institute, and the larger governmental laboratories. The true realization of the potential in systems technology transfer cannot be made unless the blindness system is prepared to accept the definition of problems proposed by technologists, to engage in joint undertakings of research and development, and to open target populations in sufficient numbers to make possible realistic evaluations of technological product; similarly, technologists must face the need to learn the definitions of presenting problems at the level where they operate for the individual, to respect the political sensitivities of the blindness system, and to accept modest goals when a more ambitious goal is resisted. The burden of learning is lopsided here, since we have existence proof that technologists can learn the intricacies of blindness organizations and their populations, whereas we can expect but limited understanding of the potentials of technology on the part of a technologically naive user community. Still, this would be all the more reason for patience and good will to be cultivated on both sides, if for no other reason than that both technologists and blindness organizations hope to provide useful results for the same ultimate group of consumers.

Risk and investment capital

From a biostatistical point of view, blindness is a relatively rare phenomenon. From a human point of view, there is no human affliction requiring more sophisticated applications of knowledge to make up the sensory deficit. Thus the creation of sensory aids for the blind represents the most significant test case for the management of biomedical engineering. Unfortunately, it also represents the classic situation of biomedical engineering: namely, the very high cost of application of systems technology to relatively very small populations of users. Classical market research strategies simply have limited applicability in such circumstances: as a first best estimate of market possibilities they do nicely, particularly when no such effort has been previously undertaken (11).

Countries other than the USA have faced this situation rather realistically, and one of the most outstanding solutions found so far has been the National Research and Development Corporation of the United Kingdom. I shall not discuss the specific arrangements the NRDC enters into in its easement of difficulties in the translation of research into practice, but rather I should like to extract a general observation about such translation that I think is truly "value free" so far as any political implications are concerned. The difference I am interested in is the difference between risk and investment capital allocation, and the role that such sums may play in the research utilization process. It is clear to all those who have participated in it with endless frustration that the current system of making the rounds of possible sources for funds for each specific instance of development of sensory aids is wasteful and ultimately self-defeating—for few sensory aids manage to survive the process successfully. I would hope that the

next decade will see an extension and adaptation of the models like that of the NRDC in the developed countries in which risk capital could be investigated in promising, but early, research for the production of sensory aids; and investment capital could be enlisted for the production of everyday aids. What is implied is a *relatively* centralized source of such monies, and of course suitable review of proposed investments. I think that these requirements imply a resource of national scope, almost surely even in the case of the USA, and most assuredly in the case of other developed countries; perhaps one might hope for the creation of such a source for the EEC?

Technology-intensive slow production

Allied to some of the problems mentioned above is the curious situation obtaining for sensory aids which are complex, relatively expensive to produce, and which are needed only in small quantities over a long period of time. The most frequent examples arise in the area of measuring instruments for electronics technicians who cannot use visual displays, although the situation is not unique to them. A production line in the usual sense cannot be established for these devices, since the demand is low; one is almost forced to a solution based on custom-assembled and custom-tailored devices matched to an individual's requirements; almost, but not quite, since the number of instruments required (especially for a world market) is large enough to merit some rationalization of production.

At the moment the population of technicians who need such instruments is (badly) served by a network of self-help whose existence is surprisingly little known, either among the visually impaired population, or among those who run organizations for the blind. The "community" of technicians attempts to meet the need for instruments by maintaining basement workshops in which some of them modify and repair equipments for others, until they realize how inefficient this is. The workshop discontinues its operation until the need is so strong someone else tries it again, with the same ultimate result; and so on.

The clear realization that a probably permanent subsidy for production of technology-intensive, complex, costly, and small serially run devices is necessary would go far toward making these instruments available over the long term to those who need them when they need them. We have an obligation to solve this problem for that important portion of the population of the blind who have the knowledge and capability to use best the products involved: servo-controlled measuring devices for electrical circuits, components of radio sets, specially adapted instruments for television servicing, and so on.

Optimizing technology transfer

I speak here not only of technology, but of the results of research in general. By focussing on technology, however, it is possible to emphasize the importance of *shared* knowledge of the social options opened up to us for change and accommodation by technological achievements. As an example of what is involved, consider the efforts of the last ten years to solve the difficult problem of "enhancing the availability of

braille" (12). Now we face the difficult task of assessing the consequences of choosing high speed embossers over direct translation systems, of tapering off braille production to match its present audience, or of encouraging its growth among a larger population as the sole means of establishing literacy among those not able to read ink print; and so on. In making these choices, or better, in deciding upon the "mix" of technologies that will accomplish the result we want, the blindness system can only receive advice and consultation from the technologists; the decisions that will affect the blindness community still have to be made by that community. Without understanding the issues and consequences in all their richness and complexity, we are likely to make inappropriate choices with which we and the blindness community will have to live for years to come. For these very practical reasons—and quite apart from the matter of achieving technological literacy—it would seem imperative that the next decade see the training of and hiring of persons skilled in the understanding of research utilization, including technology utilization, widely throughout the blindness system. To date, the blindness system has been in the position of supplicant to experts who do not share its interests in serving specific population segments of the blind and severely visually impaired. Yet the involvement in transferring research products to enhance the style of life of the blind has now gone far enough that the capability for deployment of those products is the proper concern and responsibility of those who serve this community of persons. In my own view, the WCWB could make a start of some importance by establishing a technical officer of the highest qualifications in its own bureau headquarters, and one would hope that this example would be copied.

The rational allocation of change

Only the presence of qualified persons within the blindness system can aid in the achievement of a reasonable allocation of resources and innovative practices among the several subpopulations making up what we loosely describe as "the blind and severely visually impaired". Some observers in the United States appear to have been surprised to discover in the analysis of the blindness system in our country by the OSTI group, that there were several subgroups among the blind population not at all served by the blindness system (13). Although it now appears generally agreed that by far the greater proportion of the blind comprises those over 60 years of age, it also appears agreed in retrospect that there are important subgroups of the blind population also not served by the blindness system. Among them are the multi-impaired, ethnic minorities, those two-thirds of the blind not known to welfare agencies—in general, most of those who are not single impaired (blind only), educable, and potentially employable. An equally large number of the visually impaired is also not usually encountered.

If the choice were made to encounter everyone with serious enough visual difficulty that the individual were impeded in work or leisure activity, it is likely that the blindness system could not even cope with the onslaught of demand for its services. Stringent definitions of "blindness" do not eliminate this problem, but merely relegate it to the

domain of the unobserved and unrecognized. Yet in the next decade we could decide to encounter, or try to encounter, these persons. We should probably find that among them one could find applications for products of research that so far go begging for application: the optimum design of closed circuit television reading aids, new procedures for teaching language and reading, innovations in computer-aided instruction, instruction techniques for optimal use of gradually increasing leisure time as the work week shortens in the developed countries, and so on.

The effort of thinking through the consequences of these new challenges would, perforce, press us toward consideration of the admittedly limited resources of money, time, and personnel that we can allocate to the several subpopulations involved. But I suggest the effort to be potentially among the most rewarding we could undertake; and its immediate result would be a heightened awareness of our allocation of resources to research and to practice.

A "critical incident" test of technological innovation

We have come a long way since the poetical and invigorating insight of your former President, Charles Hedkvist, challenged the world to mount a more rational attack on the sequelae of blindness; in 1962, Hedkvist suggested that blindness might well be viewed, in one sense, as a "technical disability" (14). The notion then was that if the lack of visual input was what characterized the liability of blindness, why then, all we need do is to make up the deficit in information input to the blind human, and he could function as well as his sighted colleagues. Admittedly, the formulation side stepped the profound human consequences of blindness, but at least it emphasized the crucially important differences between visual impairment (a measurable deficit in visual function) and visual handicap (the *social* reaction to an impairment on the part of others). It also clearly implied that with cleverness, we could hope to make up the visual deficit by technical means, and thus erase the negative social reaction to impairment. It further hinted that a whole panoply of technical means might be required to make up that deficit, but that the challenge of doing so was well within our capabilities to accomplish.

Put in the baldest possible terms, the hypothesis implied has never been truly put to the test. Nor can it ever be until we have come to the point at which that "armamentarium" of which I spoke earlier is at hand. We have some reason to suspect that the outcome would be favorable; one study concluded that with comprehensive technological and training support, blind persons tend to behave like their sighted neighbors, by every reasonable social index employed (15). In the somewhat more limited sphere of vocational preparation, reports from Heidelberg encourage one toward the same conclusion (16).

The means are now near to hand to flesh out the fantasy that Hedkvist and many others could only suggest. The next decade could bring us closer to answering this crucial question on the utility of technological intervention in the amelioration of the sequelae of sensory impairment in a highly significant way. It should go without saying that for at least

some of the subgroups in the "blind" population, the benefits of technological products will go far toward erasing the social distance between "the blind" and the sighted. For how many of the subgroups, and to what extent, are important questions that we cannot at present answer. The need for this kind of information is crucial both for research and for practice, and it will require considerable thought and wit to interpret within and without the blindness system.

Monitoring change

As part of the challenges facing us in the next ten years, the matter of assessing what we have accomplished, and planning best to remedy what we have overlooked, is one that catches us least well prepared. What is involved is a clear understanding of that much used, but still most often abused, term: evaluation. In some cases, as in the design of mobility aids, we cannot make such assessments because we do not have an adequate theory; in this particular case, we can expect a striking improvement in our intellectual understanding in the next few years. (A forthcoming publication illustrates the beginning of a solution to the problem of the creation of an adequate theory of mobility (17).) In other cases, we cannot make such assessments because we have not yet specified with sufficient precision what it is we wish to accomplish; what, for instance, is the optimum choice for a system of delivery of services to the visually impaired and blind population? (18) Finally, we cannot make such assessments because there is insufficiently general appreciation of the need for persons to be charged with this task among the organizations involved (19).

Unless we keep careful accounts of what we do, how can we tell whether a change is useful or not, or whether a proposed change has failed for the right, the wrong, or for indifferent reasons? Perhaps the attempt to teach "speed reading" in tactile displays will be a useful technique—for some, under some conditions. How else will we be able to tell, unless we specify what "reading" consists in, what "speed" consists in, how the techniques taught are used, whether they continue to be used, and what the results are over a fair time frame? How else can one settle the controversy between whether one should provide a universal reading device capable of detecting the output display of all (or almost all) electronic calculators—or develop a special-purpose electronic calculator for the blind with a tactile or an auditory output?

What is suggested here is really the expansion of the proper conduct of the research and development process to encompass not only the population of technologists and researchers, but the training community, and community of users, in a series of "feedback loops" that will continually inform earlier steps in the process of translation of knowledge to the practice domain. In the proper conduct of the process, we shall be required to develop those evaluative tools and understanding that can help build a priceless resource for both the research and the practice communities; and there is a considerable communality of interest between the two groups of people involved, including the ultimate consumer.

The creation of theoretical models

In this, the last of the required resource needs I foresee for the next decade, I shall merely reflect and amplify upon a matter already touched upon in these comments; and perhaps I shall reflect in part one of my special prejudices. It is that without the creation of explicit theoretical models to guide us—in the development of mobility aids, reading aid in introducing social change, in optimizing human functioning in the presence of sensory impairments, and so on—we are doomed to the repetition and waste and frustration that has characterized so many of our efforts in the past. It is not merely that those who ignore history are doomed to repeat it, although that is a sad enough consequence of ignorance. More generally, however, without a theoretical model, we have a tendency to overlook the obvious, or simply not to know wherein our ignorance lies; and we are thus likely to ascribe success or failure of our enterprises to factors which may or may not be operative. This, too, may be harmless until one tries to use "past experience" as a guide to future action; if we then construct our action on the basis of factors presumably contributing to the success of a past endeavor, which were nonetheless irrelevant, we find ourselves at a loss to understand why our new undertaking has failed.

If it were true, for example, that visual information processing consists in a reduction of retinal images to prototypical cortical representations (Urbild), then the task of creating a viable display for a mobility aid depending on tactual display or cortical stimulation might be considerably simplified; if it were not true (or at least insufficient) the task is considerably more complex. We now have reason to believe that the proposed solution is oversimplified in the extreme, and that mobility in the human is a considerably more complex process; and we know this from the gaps in a theoretical model proposed by Leslie Kay of the University of Canterbury. In another example, a project founded on the best intentions of providing employment for blind persons failed because, in part, it failed to take account of the fact that the employment niches involved represented jobs vacated by sighted persons moving up in the social structure; and that blind persons, whatever their origin, were proposed as replacements regardless of their feelings and knowledge of the facts. As another example, consider the optimal organization of delivery of services, a matter often embroiled in controversy in the conflict between special interest agents of the blindness system and general rehabilitation agents working for all impairment and disability categories. Will the addition of an ombudsman for the impaired help? What of the use of vouchers or scrip in the hands of ultimate consumers of services? How can one decide among alternatives without reasoned trial and experiment, and a careful accounting of experience which leads to testable generalizations,¹ or deduction from generalizations? And yet, without some change in the delivery of services and the structures meant to serve this end, how can the blindness system ever hope to cope with the onslaught of the silent populations it means to encounter in the years ahead?

The discerning will note that this collection of apparently disparate topics actually tend toward a common ground—indeed toward that

cleverness, best use of reason, and a firm will to succeed I hinted at in the outset of these remarks. The definitions of reality upon which by far the largest proportions of the organizations in the blindness system have operated during the last several decades are by now some 50 to 70 years old, for in the beginning of the Twentieth Century the major sources of recruitment to the population of the blind were from ophthalmia neonatorum and from industrial accidents: hence our continuing emphasis on the educable young and the employable adult. (20) Some perturbations to this conceptualization of reality occurred with the onset of demands from veterans blinded in wars, and from articulate and suasive and politically salient parents of babies blind from retro-lental fibroplasia. Similar and potent perturbations are beginning to be felt from the onslaught of those afflicted in the cyclically-recurring rubella epidemics; and a growing pressure will be felt from the absolute increase in the number in the population suffering from genetic defects having blindness or severe visual impairment as one of the outcomes. But during it all, a besieged community of interest has had all it can do to "take care of" those it purported to serve. In this climate, the blindness system has been content to receive help as and when it could from outside sources. Hence the growth of scientific advisory bodies, and the undertaking of applied research in university and research institute settings. Limited to *Gebrauchstechnik*, these arrangements allowed a certain muddling through. They are no longer adequate. The diffusion of technological understanding, and the appreciation of the complexity of the presenting problems of blindness, plus the demand that the applications of scientific understanding match more closely to the needs of the population purported to be served—all these elements combine in new definitions of the reality we find ourselves in, one demanding in turn new and sophisticated allocation of our intellectual and human potential in answer to far more complex and fresh approaches to a wider variety of problems attendant on the consequences of visual impairment and blindness. Nor do the old distinctions between "basic" and "applied" research, or between "research" and "practice" serve us as well as they used to; it came as a surprise to many to discover that the most difficult research problems were presented by the simplest questions the blind person could ask about what could be done for him—and it is equally surprising that, upon examination, much of what passes for "solid experience" in rehabilitation generally rests upon a tissue of loosely woven experience, gaps in knowledge, and mere prejudice. The requirements for "best practice" now infringe more and more on the outcome of research undertakings; and the adequate accomplishments of applied research encroach more and more on the domains of our most extended scientific understanding in many allied fields.

It would appear appropriate to acknowledge these new definitions of the world in which we live, and by mastering them, to mount a fresh attack on the prospect of using all our skills, our understanding, and our sympathies in the creation of all the opportunities for the realization of optimal human functioning of the visually impaired and blind that are possible. The next decade provides us with fresh opportunities

to meld the communities of research, of practice, of consumption of knowledge that exhilarate men of ideas and men of action in a possible common enterprise of the highest order of human achievement. It is a prospect well worth consideration.

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IS THERE A NEED FOR STANDARDIZATION OF BOOKS AND APPLIANCES FOR THE BLIND

by Dobrosław Spychalski, Poland

The production of aids and appliances is an important aspect of service for the blind attracting particular attention all over the world. It is understandable that blind people have been optimistic about the rapid development of technology and its achievements facilitating their every-day life and compensating the ravages of blindness. However, the great variety of appliances and their limited demand makes it impossible for individual countries to undertake their own production in this field. That is why most countries have to import considerable amounts of aids and appliances. Numerous suggestions have been put forward regarding international division of labour, which would allow for a larger and at the same time more paying production, resulting in lower prices for some equipment. In this situation a vital question arises: whether and to what extent there is a need for adopting international standards.

In my opinion, the general standardization of aids and appliances for the blind is not needed. The problem should be considered individually for particular kinds of equipment. Sometimes the lack of standardization may even be beneficial to the blind assuring more possibilities of choice dependent on individual needs and preferences. Braille slates are a good example here. They are usually produced independently by various countries; so their size, number of cells and lines, as well as the size of a braille letter vary considerably. In this area the only thing to be done is to organize wider international exchange so as to satisfy the individual needs and preferences of blind people to the fullest extent. Similarly, the standardization of braille writers is not indicated, i.e. institutions supplying the visually handicapped with necessary appliances in a given country should attempt to acquire the types of braille writers preferred by import or international exchange without foreign currency, considering such qualities as price, size of letters, speed of writing, etc.

The problem of modern braille printing machines should be solved in a different way. The independent production in individual countries is not possible here because of extremely high costs and the relatively small demand. It should be noted that sizes of braille books are different in various countries, e.g. French books are 22 cm × 26 cm in size, while German ones are 28 cm × 35 cm. Thus it is necessary either to provide such universal machines able to print books of various sizes without waste of material, or to adopt a standard size for all braille books. The same applies to the equipment for embossing drawings of various sizes to be enclosed in books.

Another indispensable step should consist in the standardization of the production of maps, plans of towns, globes, physical and biological drawings, electric diagrams etc. The diversity of symbols for country borders, seas and rivers, for example, makes it extremely difficult to use imported maps. It seems to me that a special international commission should be set up in order to define criteria for a standard system of symbols selecting the best methods and considering easy and quick identification of the symbols by the visually handicapped. This problem is extremely important, for many countries cannot afford the production of such educational equipment, so international cooperation and exchange are highly recommendable in this field.

The next vital question is the introduction of standardized braille notations such as: mathematical, chemical, music, phonetic transcriptions, etc. Each country can print in braille only a small part of specialized literature, comprising higher mathematics, music compositions, dictionaries, etc., which is not enough to satisfy ever-growing needs. The introduction of standard notations would initiate wider cooperation among countries in this area and perhaps even the coordination of publishing plans on an international scale.

The great role of standardization in the field of talking books for the blind is also obvious. Nowadays many blind persons have undertaken linguistic studies. Besides, students of other disciplines would also like to borrow necessary books from libraries abroad. Non-standard systems of recording books, such as in Great Britain, for example, are a serious obstacle to international cooperation in this area. Moreover, the blind who use such recordings have to purchase, in addition, the normal, commercial types of tape-recorders for other purposes.

Catalogues of aids and appliances for the blind have been continually enlarged by new items and even whole sections. They include: educational equipment, appliances for every-day life and leisure time—special games, travel aids, equipment to help blind persons to do their jobs, etc. It would hardly be possible to list all the sections and types of appliances and to consider each separately from the point of view of standardization. It can be stated, however, that in most cases, standardization is superfluous and even harmful. Some aids such as canes, measures, needles, serve to satisfy mass demand; others, however, are meant only for definite groups of blind people or for persons of certain professions. Large-scale production is, undoubtedly, more economic and besides, less developed countries can undertake such production to satisfy their most essential needs. This independent production not only creates the necessary conditions for the choice of suitable aids—of home production or imported—but also allows for competition, which helps to improve the quality of goods and encourage the introduction of new and better patterns. Nevertheless, specialization should take place in the case of small-scale production of aids. However, the necessary condition is that the products should be universal, i.e. fit for use in various countries, adapted to various technological conditions, e.g. appliances for blind programmers, electric gauges, converters for calculators, etc.

Summing up the above considerations, I am of the opinion that

standardization of books and appliances for the blind is an important problem which should be dealt with by a special commission set up by the World Council for the Welfare of the Blind. The commission should work out the recommendations for close international cooperation in the production of special appliances. Thus the problem of "narrow" demands, impossible to tackle within one country, could be solved, such as the production of special repeater watches for the handless blind. All this, however, can only be dealt with by an international body coordinating these problems.

MODERN RESEARCH TOWARDS IMPROVING EDUCATIONAL OPPORTUNITIES FOR THE VISUALLY HANDICAPPED

by Dr. M. J. Tobin, Birmingham University, U.K.

Educational research has as its primary aim the elucidation of the conditions that permit children and adults to learn more effectively. It is essentially a practical or an applied science. Like other applied sciences, engineering for example, it is heavily dependent upon the development and refinement of its 'tools': its modes of conceptualization, its methods of investigation, its measuring instruments, and its techniques of analysis. Education is also like the other applied sciences in that there are some approaches, some lines of investigation more immediately practical and relevant to the day-to-day work of the potential users, and the success of these particular investigations is largely a matter of using the appropriate tools and having access to the necessary time, money, and skilled personnel. Educational research can show numerous examples of this kind of investigation, and many people would claim that the straightforward implementation of the results of such research would do much to improve the efficiency of the educational process. Not all research is so obviously and immediately relevant to the classroom situation, however, and I wish to argue in this paper for a proper balance to be struck between two apparently different strategies, one of them to be labelled fundamental and theoretical and the other to be labelled as applied and immediately relevant to the classroom situation.

It is my intention to show that these two lines of attack, are complementary, and that researchers must not pursue one line at the expense of the other. To begin with, I think it appropriate to cite examples of important research projects that have been carried out by research teams in countries other than my own. Many of these studies are already well known to the delegates at this conference. Among the 'practical' examples, I would refer to the work undertaken at the Moscow Institute of Defectology on the formulation of vocational curricula for visually handicapped students. This mammoth task was carried out in the Institute where the experimental work was done before 'the modified product' was 'sent out . . . for use in the Soviet school system' (Graham and Clark, 1964). In the United States, the study carried out by Nolan, Morris, and Kederis, (1964) on the value of an experimental programme in the teaching of modern mathematics may also be claimed as falling within the category of the immediately practical and relevant. An example of an investigation that would appear to be of more theoretical interest is Tillman's (1967) comparison of the performance of blind and sighted children on the Wechsler Intelligence Scale for Children. This experiment seemed to suggest that there was 'a lack of intergration

among educational experiences' by the blind children, 'with the result that each bit of knowledge was cast into a separate frame of reference'. If these inferences are valid, it is not readily clear what course of action should be followed by parents and teachers; what this kind of study logically entails is that we should go on to make a closer examination of the blind child's patterns of thinking, and it may take many years of work before the practical implications can be spelled out and put to the test of validation and modification. Of similar theoretical interest are the findings of Zemtsova and Solntseva (Solntseva, 1966) suggesting that "there exists for a very prolonged time (almost for the whole pre-school period) a marked generalization, and global, poorly differentiated recognition" of ordinary household objects, with the young blind children tending to label objects not specifically but by the class or category to which they belonged.

It is unfortunately by no means uncommon for the results of theoretically-oriented researches to be at variance with one another. One consequence of this is that disillusion sets in and the cry is that we should devote ourselves to investigations that are less speculative, more easily describable and definable, and that have objectives that can be seen to be of use in, for example, the teaching of mathematics, or braille, or English, or mobility. Everyone can see, or thinks he can see, the likely value of Genensky's work on the use of closed circuit television for the partially sighted (e.g. Genensky, 1970). Foulke's examination (Foulke, 1962) of the factors influencing the comprehension of rapid speech by the blind is similarly appreciated as having a potentially important 'pay-off'. Both those investigators—and it would not be difficult to find other examples—were looking into problems the successful solution of which could lead to measurable benefits for visually handicapped students. When it is a question of limited financial resources, one can see that there will be a strong temptation for a higher priority to be given to supporting research proposals and programmes that have this practical pay-off as their primary aim. It is sometimes overlooked, however, that while such research programmes may be successful in that they achieve their stated objectives, their effect on the improvement of teaching may be of only marginal significance. To use a metaphor I am addicted to: putting an expensive stainless steel, anti-corrosive 'silencer' on a ten-year old car that is mechanically unreliable and full of rust is unlikely to make very much of a difference to the car's overall performance. Some 'practical' researches in education are like that. They increase learning efficiency by x per cent in a given subject-area that may itself be only a very minor part of an already outdated curriculum. This is not to say, of course, that we should prescribe some predetermined 'increment of improvement' before authorizing the implementation of the findings of practically-oriented research programmes. What it should alert us to is the fact that 'applied' studies may not always be very significant educationally. Conversely, theoretical studies, for all their apparent remoteness from the immediate needs of the student and his teacher, may have far-reaching implications over a wide-range of subject-areas. Everyone who is familiar with the work of Piaget will agree that his investigations into the development of

children's thinking have had a considerable impact on teaching practice and upon the way teachers now look at the children in their care. Applied and fundamental researches are not, therefore, necessarily as different from one another as their labels, their names, might lead us to infer.

In the work we are now doing at Birmingham University, there are examples of both these approaches. Our longitudinal study, which is designed to last some 10 to 12 years, falls into the first category. What we are hoping to do is gain some understanding of the course of cognitive development in blind and partially sighted children attending residential schools. We have selected the children who are now 5 to 6 years of age and we shall follow this group throughout the whole of their school careers. There are 117 children in the cohort, with approximately equal numbers of blind and partially sighted. So far we have gathered the following information: the causation of blindness, measured acuity, the incidence of handicap in the family, a teacher-scored rating of how well the child settled into the school, a measure of his intelligence, his visual efficiency, and his performance on tests concerned with language skills, inferential thinking, conservation of substance, tactual perceptual ability, and short-term memory capacity. As the children progress through the school, we shall obtain data on the level of their attainment in the conventional subjects of the curriculum and try to relate this to the information already gathered. Although our interest is mainly centred upon school achievement and the growth of cognitive skills, we also intend to look at non-cognitive aspects of personality since so much of school achievement rests upon affective and emotional factors. It is, at present, too early to say anything definitive about the results we are now in the process of analyzing. Delegates may nevertheless be interested to learn that, as so many of them know from their own experience of young blind children, the most able of them are performing on our tests, especially those concerned with language development, conservation, and inferential thinking, at a level directly on a par with that expected from the best of their sighted peers.

A brief description of the inferential ability test may help to show the kinds of thinking we are investigating. One set of materials consists of five wooden rods, differing in height by steps of one inch, and each rod having a unique shape and surface texture. The rods are presented in pairs and the child is asked to compare their lengths. When the child has learned to make these comparisons accurately (and, of course, many of the younger or less able children cannot do this yet), he is then asked to say which of the rods, B and D, is the longer and which the shorter, the actual physical comparison *not* being made. This pair of rods has not been compared by the child during the training session, and he is, it is hoped, having to make the judgment by reference to his memory of rod C which is intermediate in size. We are finding that a few of our five and six year olds are coping quite successfully with this task. How far their success is due to previous, relatively unstructured activity involving the classifying and comparison of objects to be found at home and in school, it is difficult to say. Whether it is also a genuine instance of inferential thinking (as opposed to a mere remembering of

the absolute lengths of the rods) is again open to doubt. As regards this latter objection, we are in the process of reformulating the experiment and we hope to have some further evidence in the near future. The point to be made at this moment is that by experiments and observations of this nature, we hope to throw light on how children think, the kinds of frames of reference they use, and the antecedent conditions that must be provided if they are to succeed in tasks involving logical and inferential thinking. Teachers can then use these 'tools', these ways of looking at the child, so that they acquire a more detailed understanding of his present capacities. It is from this base of understanding that they can then draw up a teaching prescription tailored to the child's existing skills, his current needs, and the school's objectives. In the long run, we would hope to see the tests we are working on used as a routine part of the classroom teacher's array of diagnostic and investigatory procedures. We would argue, then, that the 'remoteness' of our experiments from the immediate, day-to-day problems of the teacher is more apparent than real.

Another example of research that seems to have little immediate relevance to the classroom is our investigation of methods of measuring the short-term memory capacity of children suffering from a combined visual and hearing loss. Studies with non-visually handicapped children (e.g. Graham, 1968) have shown a relationship between measures of memory span and performance on various kinds of language tasks. It would seem from these studies that restricted memory span is an important factor in language deficiency in young children, particularly those classified as educationally subnormal. If short-term memory deficiency is so significant in the development of language skills, one might expect the deaf-blind child to be saddled with yet another educational burden since he is unable to group into bigger segments, such as whole words and phrases, those basic building blocks of spoken language, namely phonemes and syllables. The finger-spelling mode of communication, for example, makes big demands on memory since each word has to be spelled out letter by letter, and both 'speaker' and 'listener' have to hold chunks of information in store until enough has been transmitted to enable meaning to be extracted. The handicap of sensory loss is thus exacerbated by the characteristics of the available modes of communication. With one or two notable exceptions, facilities have not been made available for conducting research into this complex area of handicap, and so the teachers of the deaf-blind have to use methods and tools that their experience and intuition tell them are inadequate. Alternative methods of communicating, such as the Paget-Gorman system, that make use of 'whole-word' signs may have advantages but evidence is needed to show that the learning load is either less onerous for the child or, where this is not the case, that the productivity of the system outweighs any extra learning demands it may make. I know of no evidence that has any bearing upon this latter point, and our own efforts are aimed at the even more basic problem of finding a valid and reliable method of evaluating the short-term memory of the deaf-blind child so that we can proceed to the next stage which involves exploring the relationship between proficiency in finger-spelling and

memory capacity. The difficulty here is that the conventional methods of measuring letter-span and digit-span are inappropriate for a child who cannot pick up the stimuli when presented visually or orally. Our current attack on the problem consists of examining the feasibility of presenting the stimuli tactually. The investigator touches the fingers on one hand of the child, and the child responds by touching the same fingers in the same order, with his other hand. What we now have to show is that, provided this procedure is reliable (i.e. produces the same results when the test is repeated), it is also a valid measure of short term memory capacity. We are looking at this by presenting the same test to ordinary blind children (those without a hearing impairment) and seeing how their performance correlates with their performance on the conventional letter and digit-span tests. In terms of reliability, our preliminary results are encouraging, with test-retest co-efficients being in excess of $+0.91$. The correlation between test performance and teachers' ratings of the children's general level of intellect is of the order of $+0.70$. The difficulty facing the researcher interested in this group of handicapped children is that the basic research and measuring procedures have to be developed from scratch before he can move on to exploration of the relationships among the variables he is ultimately concerned with. There is no guarantee, of course, that his preliminary work will prove valid nor that the final, practical objective will be attained. This is the price that sometimes has to be paid, and we are fortunate that, with the help of the Royal National Institute for the Blind, we have the resources and long-term stability that are the basic requirements for a successful outcome.

An example of the second type of approach—the one that potentially has immediate practical application—is the project which we are starting in October of this year, and the genesis of which owes so much to Dr. Barraga from the United States. This investigation is 'curriculum oriented' and is to do with encouraging and training the visually impaired child to use his residual vision as effectively as possible. We have appointed two additional members of staff whose task it will be to develop materials, 'exercises', and activities requiring the child to obtain information from three-dimensional objects, two-dimensional drawings, and print on a visual basis. We know from Barraga's work (e.g. Barraga, 1964) that visual discrimination skills can be improved in some children technically registered as blind, and one of our aims is to ensure that the project just beginning in the UK will give teachers an understanding of what can be achieved by systematic training and will provide them with examples of lessons and activities that they can adapt and extend in their own classrooms. In addition to a teacher's handbook, we hope to be able to produce some 'programmed' lessons so that the pupil can proceed at his own pace and obtain immediate knowledge as to whether any given response is correct, thus enabling him to guide and monitor his own progress. The practical value of this kind of project is obvious. So, too, is the now-completed, self-instructional programme that we have designed to allow newly-blinded adults to teach themselves braille. These tape-recorded lessons and their associated braille booklet have a precise objective: to introduce the blind

adult to the braille code and to give him practice in reading it through a series of graded and structured exercises.

Outside our own Centre, one can cite other investigations now being carried out in the UK that fall into the category of immediate relevance to the blind student and his teacher. One such is that of Dr. Gill at Warwick University. Here, workers with a background in engineering have devised new methods of producing embossed diagrams and maps, using a computer as the basis of their system. Modern technology has been harnessed in such a way that we now have a set of tactually discriminable lines, points, and other symbols that will open up new opportunities for blind students wishing to study complex topics in geography, science, and mathematics. It is worth noting that this project, apart from its practical objectives, also had a more fundamental research component since the investigator was obliged to carry out psychophysical tests to determine whether the symbols he could produce with the aid of the computer were in fact discriminable from one another by the potential users. A second example of an investigation with a practical outcome as its objective is the project now being mounted by the National Foundation for Educational Research. As many delegates will know, most blind and partially sighted children in the UK are educated in special schools. There is, however, a strong conviction among some parents and educationists that visually handicapped children should be educated alongside their sighted peers in their local primary and secondary schools. This is not the opportune time for me to present my own views on this topic—of integrated as opposed to segregated education—and all I wish to do now is to suggest that the kind of descriptive, survey-type investigation to be undertaken by the NFER is valuable since it will amass some objective data that will be of use to the policy-makers. The study will examine the characteristics of children taught in special schools and those who are being taught in ordinary schools; it will assess the children's educational, social, and emotional development, and it will also look into the attitudes of the children, their parents, and their teachers towards the differing types of provision. In addition, it will try to discover the special kinds of facilities that have to be set up if integration is to succeed. While it may be true that, as Bateman (1967) has argued, issues of this kind come within the realm of value judgments, many of us feel it useful to have for consideration all the relevant evidence; unless one's ideology and system of values is part of a permanently closed system, the stimulus for change and innovation will rest in part on the information made available by empirical research.

The unifying theme of this paper has been that researchers must mount a two-pronged attack if they are to make their own particular contribution to improving the educational opportunities of the visually handicapped. On the one hand, they must be prepared to carry out relatively short-term, ad hoc projects that have precisely defined objectives and that have consequences readily and immediately assimilable by the schools and colleges. Often enough, these projects will have been suggested not by the researchers, but by teachers, administrators, parents, and other 'pressure' groups. The researcher's function is to

turn their aims into operationally definable concepts and then to devise or adapt methods that will provide meaningful data. On the other hand, the researchers must be prepared, on the basis of their experience and expertise, to suggest and implement investigations that may be difficult to conceptualize and that have no 'at a glance' relevance to what is going on in the busy, hectic world of the classroom. Studies of this kind may also be costly in time. Among the benefits that we may expect to derive from these more theoretically-oriented investigations is the accumulation of knowledge about perceptual, cognitive, emotional, and social development, and a gradually sharpening awareness of what it is that facilitates learning by the child and the adult who must forgo the use of a normally functioning visual system. This is what the visually handicapped student and his teachers have the right to expect from us if we are to be seen as making our proper contribution to our common objective.

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THE SIGNIFICANCE OF SCIENTIFIC INVESTIGATIONS IN SERVICE FOR THE BLIND

by Dr. Tadeusz Majewski, Poland

Nowadays, in the age of science and technology, it would be impossible to solve difficult social problems without the contribution of suitable scientific studies. Those difficult social questions comprise services for the disabled including the blind. Visual impairment constitutes a social problem to every society. Its gravity results from the fact that blindness burdens a man with its wide consequences. The ravages affect not only the sphere of perception, where sight plays the most important part, but also that of activity and of personality. Thus blindness with its consequences has an influence on man's personal, family and social life as well as on his profession. It can be noted that the effects of this handicap are of various kinds and constitute many different problems.

Generally speaking, services for the blind provided in many forms by various countries, institutions and organizations aim at reducing as much as possible the consequences of blindness and making the blind possibly the most self-reliant and independent members of society, thus carrying out rehabilitation in its widest sense.

The process of rehabilitation of the blind is not an easy one because of its complexity. It means that within this very process all problems caused by blindness have to be solved; in other words all the rehabilitation needs of a blind person of medical, psychological, pedagogical, social and professional character have to be satisfied. Thus, rehabilitation of the blind reveals many aspects and involves various disciplines of science and even technology.

Scientific investigations concerning services for the blind have aimed at studying thoroughly the problems resulting from blindness and establishing the basis for efficient forms of activity so as to achieve better results in this field. Therefore, such investigations have been carried out in many countries. Their scope and scientific level vary and depend mainly on:

1. The social policy of a country, i.e. what rank and importance is attached to social questions.
2. The gravity and scope of the problem concerning the blind in a country, i.e. what part of a society the visually handicapped constitute.
3. The specialists and scientific base that can be devoted to the questions concerning the blind.
4. The economic position of a country, i.e. what financial support can be granted for such investigations.

In general, it should however be stated that the community of the blind in every society being relatively small, scientific investigations concerning their problems are rather wide. They take place in large

scientific centres as well as in smaller institutions providing services for the blind.

In the first case prominent specialists and suitable material resources for investigations are available. Such centres investigate those questions which are most meaningful for solving the problems resulting from blindness.

Besides, numerous studies of less importance are being carried out by institutions organizing and providing services for the blind. The specialists involved have usually less diplomas but more professional practice. The results of such investigations bring about better rehabilitation, pedagogical and social care for the blind. Such studies are of particular practical significance. They are often initiated by people who, having no ready patterns for solving difficulties in their work with the blind, seek them by their own scientific enquiries.

So far, the aims of studies of the questions concerning the blind have been the following:

1. Thorough consideration of the blind—the consequences of blindness, aggravating factors, the possibilities and requirements of rehabilitation, factors impeding or stimulating the process of rehabilitation of the blind, etc.
2. Good knowledge of compensatory capacities of the human body in order to utilize them in the process of rehabilitation.
3. The application and contribution of technological achievements to rehabilitation of blind persons; this is a question of the production of such apparatuses and technical aids which would be a possibly perfect substitute for sight in the areas where natural compensation is not sufficient.
4. The removal of psycho-social barriers which make it difficult or even impossible for the blind to integrate with the society of sighted people.
5. Prophylactic measures concerning organs of sight of the sighted or partially sighted; they include revealing the causes of blindness, methods and means of prevention of eye diseases etc.

Scientific investigations have dealt not only with the questions concerning the community of blind people as a whole, but have also considered the needs of some particular groups, such as: children and young people, adults, elderly people, women, multiply-handicapped blind people, etc.

As far as blind children and young people are concerned, the studies have attempted to solve the problem of their social development, education and upbringing. It should be noted that the methods of work with blind children and young people have improved considerably and indicate further progress.

Similarly, the questions of elementary rehabilitation and vocational training of blind adults have been carefully considered by scientists and become the subject of their studies.

The investigations concerning elderly blind people—of pensionable age—and their particular problems have been the least developed.

As has already been mentioned, the problems connected with blind-

ness are very complex and difficult to deal with. Therefore, many disciplines of science and technology are involved. For it is only multi-disciplinary—complex investigation that may provide proper solutions, ensuring progress in service for the blind. This proves that studies of such problems cannot be carried on by one specialist: the representatives of various disciplines of science have to be involved. This is true particularly for considerations of basic problems such as: acquiring mobility skills, making it possible for the blind to read print—"reading machines"—providing facilities necessary for their work, etc.

Even in those questions where one branch of science seems to be dominating, specialists representing other disciplines should serve as consultants.

In considering the problems connected with blindness, the following disciplines are of the greatest importance: pedagogy, psychology, sociology, gerontology and technology. However great are the achievements of science and technology in service for the blind, there is still much to be done in order to make the blind as self-reliant and independent as possible in their every-day personal life, as well as in their work and to stimulate their active participation in the life of their community.

Nowadays, the great task of medicine consists of securing prophylactic measures and protecting people's sight. In all countries the number of people losing their sight—newly blinded—is relatively high. Besides, the problem of compensation has not been fully investigated yet. The great role of neurology can be especially noted here. Nowadays, in the age of transplantation of various organs, the organ of sight also awaits further revelations—so far, in this area only the transplantation of cornea has been practised.

Technology is that which evokes a great deal of hope and optimism. It is expected that apparatuses and technical aids will be constructed in future so as to solve all important problems of the blind connected with their life and work with the help of the natural compensating capabilities of the human body.

The continuing great task of pedagogy consists in securing for blind children and young people normal development and upbringing and familiarizing them with the world of sighted people in the most perfect way possible. Psychology should continue studying the characteristics of the visually handicapped and revealing all mysteries that are still there. The results of such studies will create the basis for the correction and improvement of service for the blind of various social groups.

The function of sociology is also considerable. The problem of eliminating psycho-social barriers which make it impossible for the blind to integrate with the society of the sighted still exists and requires the contribution of science.

Blind people are optimistic about science and hope that suitable studies will make their lives and work better and service for the blind will continue to improve and become more efficient.

The real state of scientific investigations concerning the blind suggests some conclusions, the realization of which would bring profit to the blind all over the world:

1. It is necessary to prepare information about the most important scientific achievements concerning the problems faced by blind persons and to make it accessible to all countries, particularly to those that have not been very successful in rehabilitation of the blind. Thus they could use the experience of other countries in solving their problems instead of searching for their own solutions involving difficult studies.
2. There is a need for cooperation and coordination of all scientific investigations carried out by various countries and in particular by those which are prominent in this field and have proper conditions for promoting such important studies; thus the joint efforts would advance the solving of vital questions of the blind.
3. Important problems which require immediate consideration should be chosen and presented to the specialized international organizations which would carry on the necessary studies on the international scale; organizations such as the World Health Organization, the International Labour Office, etc. could be involved.
4. It is necessary to educate young people from and for the countries which have less experience in solving the problems concerning blind people in countries enjoying a high level of development in this field.

Discussion

Delegates emphasized the need to put existing technology to better use, to promote increased coordination of research and, above all, to develop international exchange of information on current research and development as well as dissemination of results. It would be interesting to compare the findings of work being done at Birmingham University in the educational field with, for example, the comparative study presently carried out in the USSR on 500 visually handicapped children along with 500 sighted children.

The representative of Australia was of the opinion that research workers should not only concentrate on expensive equipment. A braille machine that is small, portable, light solid, that can use both sides of a sheet of paper, and cheap, was still to be found. The delegate of Columbia deplored the lack of teaching materials.

All agreed that international catalogues of technical aids were most useful and that they should be brought up to date as frequently as possible.

PROFESSIONAL SESSION 3

Friday afternoon: August 9, 1974

RELATIONSHIPS WITH THE COMMUNITY

Chairman: Mr. Ismaila Konaté

Secrétaire general, Association Malienne pour la promotion
sociale des aveugles

MOBILIZING COMMUNITY RESOURCES FOR THE PROVISION OF SERVICES TO THE BLIND

by Mrs. Elisa Molina de Stahl, Executive Director and
President of the National Committee for the
Blind and Deaf, Guatemala.

Promoting social programmes to meet specific needs is a challenge that requires unity of purpose and action.

Most countries in their drive toward development do not have sufficient monetary resources nor the personnel or institutional social structure to implement or extend services to all citizens who need them. Thus, the spark to initiate new programmes often has to be ignited with the full support of the community.

But pioneering new services implies recognition of a social need. Therefore, all members of the community must be informed and understand, as fully as possible, the nature of the problem and the measures to solve it. Likewise, the individuals, groups and organizations that compose the community in question, must be motivated to accept and share their responsibility to build a better structured society.

Consequently, the creation of a new service in a conglomerate, has to be the product of the concern, conviction, determination and voluntary cooperation of its members. The total participation of all is the wide scope of organization that professionals in social work, human relations and social welfare emphasize as a necessary condition to mobilize community resources. Social experts also stress the importance of analyzing the community, before planning the strategy to move ahead.

Fact finding and research are also part of the scientific approach for a valid interpretation of the necessity of the particular services to be promoted. But most essential of all is to encounter the gifted leaders to cope with this complex social task.

The know-how of collective approach; the aptitude to understand and penetrate in the context of human behaviour; the ability to carry the message through means of social communication; the competence for presenting a valid scientific analysis of the needs; and the firm will and conviction to go forward . . . no matter what! These are some of the basic qualifications required by those who want to further the mobilization of social resources within the community.

If the experience of Guatemala, Central America, may serve as guidelines of some of the methods employed and for a better understanding of how receptive members of a community can become, I shall endeavour to describe briefly how public interest was enlisted for the provision of Services to the Blind.

The story goes back many years ago. In 1946, the Girl Scouts were the pioneers in the establishment of the first school for a small group of children and adult blind, as well as deaf youngsters. All of them were mixed together in this school, with only the protection of a roof, some food, plus the learning of music and braille. The remainder of the needy blind in the country were beggars in the streets.

Against all traditional patterns, it was decided in 1951, by the recently established private agency "The National Committee for the Blind and Deaf", to start telling the truth about the unbearable situation confronted by the blind as well as by the deaf.

Bearing in mind that every step in the ladder of social progress requires a deliberate and coordinated effort, a campaign was started which involved the whole nation. Key persons and representative groups in the community were contacted. The initial approach was not geared only as a humanitarian appeal. It stressed how through voluntary cooperation long existing problems in the community could be solved.

The message had to reach the whole population, including governmental authorities. The aim was to make each and everyone conscious to stimulate the action.

The Newspaper Association gave full support to this drive of social education and fund-raising. Individuals and different groups in the whole nation were shown ways to pool their resources by a plan submitted through all means of communication media. People were encouraged to contribute with personal services as well as economic means. No one remained indifferent.

The desire to incorporate the blind as productive citizens, able and willing to care for themselves and also contribute to the country's progress, was no longer the concern only of the National Committee for the Blind and the Deaf. It became the responsibility of the whole community!

I. Medical Division

(a) Prevention of Blindness and Sight Conservation programmes.

(b) Medical and Surgical Treatment in out and in-patient services.

These services are being supplied through the following provisions:

Two hospitals, one located in the capital and the other in the second largest city of the Republic, attending to an average of 4,000 patients monthly. There are also five clinics in other locations of the country, established according to the needs. Likewise, mobile units serve patients in remote rural areas.

For this endeavour the Institution has a well qualified staff of ophthalmologists, oto-rhino-laryngologists, neurologists, psychologists and other specialists who serve with paramedical and other auxiliary help,

such as social workers, nurses, optometrists, pharmacists, speech therapists etc.

All professional members of the multidisciplinary team of the National Committee for the Blind have learned to work together for the follow-up of the total process that comprises all activities of the agency's divisions.

II. Educational Division

- (a) Coeducational, residential primary school for blind children.
- (d) Coeducational and residential school for deaf children.
- (c) A programme of school integration in public and private schools at secondary level for boys and girls who have finished primary grades in our residential schools.

III. Rehabilitation Provisions for Adult Blind

- (a) A rehabilitation centre in the capital city for urban adult blind.
- (b) Sheltered workshops.
- (c) Agricultural vocational training centre for rural adult blind.
- (d) Occupational placement services in urban as well as rural areas for blind persons.
- (e) Vending stand programmes.
- (f) Two stores for selling blind-made products.
- (g) Subsidies and pensions. In most cases the Committee gives financial help to blind persons until they become economically self sustaining. Also monthly pensions are provided for the destitute aged blind.
- (h) Monetary as well as technical assistance has been given to the National Association of the Blind for the establishment of two cooperatives: one for loans and savings, and a consumer's corporation.

The Institution remains privately managed with an income derived from a Lottery and private donations which merely cover its budget, owing to the increasing provision of services. But the initial sponsors and friends have never left. Whenever a law or any other measure has required their backing, they have always shown their loyalty.

Ending our story of the successful achievements of the National Committee for the Blind, and meditating about the deep human projections of the subject of our paper, one ponders upon the philosophy of the ancient Mayan culture, by quoting a passage of its Bible, the "Popol Vuh":

"Let everyone rise
let all be called,
that there be no one group,
nor two groups among us
that shall stay behind."

“THE NEED FOR PROFESSIONAL APPROACH TO PUBLIC RELATIONS”

by Dr. Rajendra T. Vyas, M.A., LLB., Ph.D.,
Honorary Secretary, National Association for the Blind, India,
Regional Representative for South Asia of
Royal Commonwealth Society for the Blind

Present Position

Barring a few exceptions, organizations and institutions for the blind all over the world and especially in the developing countries, do not have mechanism for a professional approach in public relations concerning work for the blind. Quite a few organisations appoint public relations or publicity committees, whose terms of reference and objectives though very laudable, are in actual practice not able to create an impact on society. Although two centuries have elapsed since organized work for the blind began, the general image of the blind person on the part of society at large has not changed. A blind person even in the developing countries is still being regarded as a helpless dependent, incapable of doing anything substantial, except undertaking studies, and some work of little or no consequence. Beyond the parents, relations and acquaintances of blind persons, the community as a whole is not convinced about the efficacy of blind people being capable of receiving education, training and employment. The time has now come when professionals in work for the blind should adopt the same technique, ways and means, as the men of commerce and industry have done to promote their goals. In other words blind welfare agencies and institutions should employ qualified professional staff concerning public relations to promote their goals. It should not be left to chance but must be handled as a management function. It should not be considered as one of the fringe activities of administration in blind welfare services but must become a vital part of daily administration and should be tackled with skill and foresight. It has to be cultivated deliberately.

Acceptance by Community

The test of the fact as to whether blind welfare work has been successful or not could easily be discovered by assessing as to what extent blind people have gained acceptance by the community. No one can deny that the community as a whole even today has not accepted blind people as persons in their own rights. Even where instances of success among blind persons have proved the capacity of the visually handicapped, the general belief has been that that particular successful blind

person was more endowed with additional capacities. His success instead of being attributed to his effort, is thought to be due to his extraordinary capabilities not ordinarily possessed by all.

Financial Difficulties

Unlike the world of commerce and industry which has abundance of financial resources at its disposal, work for the blind does not have sufficient flow of money to be used for developing public relations. This has been one of the reasons which has come in the way of appointment of full time public relations staff in work for the blind. It is felt that after all work for the blind is a humanitarian effort and that it would receive all support and encouragement from different sections of Society. Social workers believe that good work has its own reward, and hence very seldom attempt is made to make use of public relations in work for the blind. Public relations should be one of the basic considerations in shaping policies and actions.

Public Relations a Continual Process

It need hardly be emphasised that while society in general has always had a soft corner for work of this nature, it is absolutely necessary that the public in general is properly, rightly and continuously informed and educated about the potentiality of blind people, and the manner in which they can be turned from economic liability to assets.

Public relations does not comprise of a couple of news items, or a success story appearing once in a while in newspapers, magazines, on the radio, or on the T.V. Public relations must be a continual process employing all possible mass-media for disseminating information. Whatever material is supplied must be acceptable to the media using the information, from the point of view of nature, content and format of the information. The time at which such information is made public should also be determined according to the convenience of the news media. All this requires expert and specialised handling and therefore, the employment of a special public relations executive.

Whom to Approach

Society in the ordinary sense of the word is a vast amorphous of people, but to public relations men, it comprises of the different segments or different "publics". The angle of approach to the "different publics" should be varied. An appeal soliciting assistance should be diversely worded at least in some parts, according to the public to which it is addressed. The appeal going to the captains of industry and commerce would naturally be differently worded than the one going to a women's organization. The appeal made to the world of business should be concise and backed by statistics. It should emphasize that a blind employee despite his handicap, can work as well, if not better than his sighted colleagues. The same appeal when addressed to a women's organization may place less emphasis on statistics, and pay more stress on the human side of the story. For example how the capable blind man when suitably employed, would be able to look after his wife and chil-

dren, and bring happiness and prosperity to his family. A professionally qualified PR man could handle this efficiently.

Qualifications

Obviously a PR man selected for public relations should be professionally qualified. A special briefing concerning the education and rehabilitation of the blind, how and where it is provided, backed by an observation of these activities would enable the PR man to discharge his duties more effectively.

Preferably a PR man should be one who has the gift of the gab. This would be an added asset while addressing business houses, service clubs, women's organizations and the like. He should undertake considerable travelling to promote better understanding of the cause of the blind among different socio-economic and cultural groups. The role of the PR man in our field would differ considerably from his counter-part in the world of industry and commerce, who conducts a campaign from the desk in the office through advertisements in the press, T.V. and Radio.

Media to be Employed

It is but natural that the traditional mass-media employed for propagating news and views should also be employed in publicity and educational programmes concerning the blind. These are:

Newspaper

The newspaper is still a very important medium and if tackled properly and effectively, can yield rich dividend. Editorials for which material may be supplied by the P.R. men, special columns on education and employment of the blind, and sponsored advertisements, are but a few instances in which newspapers can be useful. Topics of interest can also be raised and discussed in the column entitled "Letters to the Editor". Here a topic such as education or employment of the blind in open industry can be aired, profiting both the blind and the general public.

Press handouts with photographs, if properly captioned and sent to newspapers in advance, would be able to get greater prominence than a news item issued through a news agency.

Magazines

Magazines are an excellent media for articles and photographs of interest concerning education, rehabilitation of the blind, and prevention and cure of blindness. The PR man would do well to keep such articles handy to be released at a moment's notice in magazines of national importance.

Radio and TV

These two media have brought about a revolution in the world of mass communications. Many countries have now taken to commercial advertisements on Radio and TV in addition to the usual broadcasts on matters of public interest. The PR men could enlist support of adver-

tisers of these media and with their co-operation buy time or rather get free time for sending a message across concerning work for the blind. Talks, dramatic performances, documentary pictures, and spot announcements through these media can go a long way in evincing public interest. Stock-scripts on items of general interest may be kept ready by the public relations men for immediate use.

Posters and Pamphlets

In developing countries of the world, where there is illiteracy, illustrated posters and pamphlets can prove of great use, a poster depicting a blind child reading a braille book displayed in a small town or village can lead to an illiterate villager sending his sightless child to a school for the blind. The poster can also illustrate the harm brought by using wrong medicines prescribed by quacks, which cause avoidable blindness.

Role of the Language Press

In many of the developing countries of the world, English, French or some other language of predominance, which is the language of the administrators, the law court, and the elite, is preferred to the native languages for publicity purposes. It is very necessary that the native language press should receive more importance as it caters to a wider and less informed public. The role of the native language press should not be underestimated in developing countries.

Statements by Men of Prominence

The President or the Prime Minister, the Governor and the Mayor would be very happy to issue public statements on work for the blind on certain days in a year. It may be the birth anniversary of Louis Braille or Miss Hellen Keller, Foundation day of a National institution or school for the blind, a day of national importance, a Whitecane day, or a Blind Welfare Week. Statements on these occasions issued by important personages would obviously receive considerable prominence by the news media. The Public relations men should make a note of such important dates in a year as may be useful, and make arrangements for statements to be issued by dignitaries on these occasions.

General Observations

Often difficult situations arise causing public anger and anxiety, and thus adversely affecting the cause for which we are working. Nothing in social welfare is immune to public criticism. One should face the situation boldly and remember that honesty, candour, and an open attitude are the essence of good public relations. Difficult problems tackled in this spirit could be overcome.

In the field of social work, everybody is important. Efforts should, therefore, be made to reach as many varied sections of society as possible. Public relations in social work is the creation of goodwill between an agency and its public at every point of contact.

Public relations is not a hobby horse that any social worker can ride at the time of his choosing. It requires special training, and deep know-

ledge about the subject matter. It requires proper planning, right type of skill, and above all perfect integration and timing.

Public relations cannot be developed overnight, nor are there any short cuts in achieving it. One has to think for it, plan for it, and work for it.

It is of paramount importance that the objectives and aims of a public relations campaign should be crystal clear. Very often an organization or agency for the blind suffers because of the lack of clarity of objectives on its part. If the organization does not know what it is seeking to achieve, it certainly cannot expect good public cooperation.

Be Flexible

In planning for public relations particularly, there is a need to be alert to the constantly changing community scene. Public relations planning involves using old tools as well as new ones.

Discussion

While not being opposed to the use of professionals in the field of public relations a number of delegates pointed out that this was often precluded for financial reasons. Better use of the press/radio/television was advocated in relations with the community, the emphasis being placed on solidarity.

By its public relations programme for the mobilization of community resources, Guatemala, a country of some 67,000 square kilometres with a population of 5 million, which was able to develop a complete programme for the prevention, treatment, education, rehabilitation and placement of the blind, through the efforts of all and the training of professionals and volunteers, can serve as a model.

PROFESSIONAL SESSION 4

REHABILITATION OF ADULT BLIND

Chairman: H. G. Roberts, American Foundation for the Blind

PRESENT AND FUTURE RESOURCES FOR REHABILITATION SERVICES FOR BLIND PERSONS

by Hernando Pradilla Cobos, General Director INCI—Colombia

This paper is the result of personal observation by someone who has had the opportunity to travel and talk with people; it presents, therefore, a true image of the rehabilitation services visited and gives two basic recommendations for the betterment of future resources. There are millions of blind and partially sighted youth and adults who have not been able to use comprehensive rehabilitation services, or Integral reeducation.

In all the continents, and I might almost say, in all the nations of the World, the rehabilitation and integral reeducation services for blind and partially-sighted persons meet with serious problems because of insufficiency or lack of resources and, still worse, dozens of countries do not have even the beginning of a program to serve this objective.

The enormous increase of the World population, and also the growing number of persons with serious visual deficiencies—because of insufficiency of services for the prevention of blindness and restoration of sight—requires more and more rehabilitation services with better planning, organization and operation.

Resources

The resources necessary for the rehabilitation services of the visually limited are of four kinds:

- | | |
|----------------------------|-------------------------|
| A. Human Resources | B. Material Resources |
| C. Institutional Resources | D. Community Resources. |

A. Human Resources

We understand by human resources all people composing the staff, persons of the services, either part-time or full time. They are managing, technical, assistant and auxiliary personnel. We are convinced that it is of vital importance for the success of a rehabilitation service that all four categories have an acceptable level of training in their special field.

The most advanced services for the rehabilitation of blind people in industrialised countries, utilize highly qualified personnel in the following areas: 1. Social work; 2. Psychology; 3. Psychiatry; 4. Ophthalmology and Optometry; 5. Mobility; 6. Physical Culture; 7. Braille reading and writing; 8. Typing and handwriting; 9. Multiple communi-

cation skills and personal development; 10. Daily Living skills and home management; 11. Social skills; 12. Ceramics, crafts, carpentry, mechanics, and assembly work; 13. Vocational Training; 14. Orientation and placement.

Other rehabilitation programmes, less sophisticated, do not have some of these specialists. And there are many levels of specialization for which personnel in existing programmes can be found.

The predominant tendency in the world is that not only the assistant and auxiliary personnel get training within the rehabilitation service, e.g. in-service training, but also that the technicians and the administrators achieve their training within the units in which they serve. However, more frequently now, we find that they are trained in programmes at University level. This is the case of the Psychologists, mobility instructors. Vocational counsellors, Placement officers, etc. The unexpected scientific level which ophthalmology and optometry have reached, the perfection which the optical aids and the technics for the training of functional vision have attained, brought about a real revolution in the possibilities of utilization of residual vision.

Unfortunately, in many countries there is a great lack of some of these specialists, if not a total absence of them.

B. Material Resources

The buildings, the machinery and equipment, the special aids and devices, the services, and the money needed to acquire them constitute the material resources. If one of them is lacking, or is unduly insufficient the success of the rehabilitation service is seriously compromised.

1. *Buildings and Land*: Few rehabilitation services have buildings and Land of their own which are adequate for rendering efficient services. Many of them are housed in inadequate facilities and many others enjoy the hospitality of some organization or pay rent for installations which are not satisfactory. Almost always, those who today have specially designed construction waited long for them.

In many instances rehabilitation programmes have not begun operating because of absolute lack of facilities, or because those obtained were not acceptable.

2. *Machinery and equipment*: At the present time rehabilitation services for blind persons find all types of machinery and equipment in the market: for the classroom, the office, the workshop, etc. The best programmes have the most advanced equipment. But there are still many services which do not have access to these powerful auxiliaries indispensable for preparing the blind person to compete on the job market and in the complex social interchange of to-day.
3. *Technical aids and devices*: Some governments, dedicated researchers, non-profit organizations, makers, have achieved the development of special aids for almost all the activities of the human being. The rehabilitation services for blind persons have, therefore, at their disposal all these specialized equipments and machineries. Unfortunately, the high cost of many of them, make impossible their

acquisition, which would help the blind to participate more fully in the cultural, economic and social life of the community.

4. *Services*: As regards services, the rehabilitation programmes find practically everything they need in some countries, less in others and hardly anything in some regions. However the services have reached an extraordinary level of efficiency even though their cost is higher every day.
5. *Financial resources*: The financing of rehabilitation programmes for blind persons is done today mainly through governments, international organizations, non-profit bodies and individual donations. In many cases the normal and effective cooperation is seriously affected by the economic limitations. Financial instability is the rule and budget restrictions are the daily bread for many administrators of organizations of this type. Some services have the privilege of not having this preoccupation. All this results in serious limitations for the utilization of the best human and material resources without which the work is very restricted and its quality and quantity open to criticism.

C. Institutional Resources

The international organizations specialized in our field of interest, foundations and societies whose influence and contribution are so important; the governmental and private organizations of each country, the Community clubs, offer institutional resources of an extraordinary value for the planning, organization, operation and evaluation of rehabilitation services for blind persons. In some countries there are no institutional specialized or correlative services that are not provided by some entity. In others, there is not such good fortune, and in some it is very difficult to obtain any of the services that are required, of the quality needed, with the coverage advisable and at the right moment.

D. Community Resources

The community in which the blind person lives, into which he or she should be integrated, in order to become one of its active and dynamic members, has a prominent role to play. A close interaction between the rehabilitation service and the community must exist. Otherwise the objectives of the service cannot be achieved as there is no other way for the blind individual to practise his skills, show his qualities, exercise his sense of values than living in close contact with the community.

The Future

Professionals working in the field will be confronted with many tasks, that can be summarized as follows:

1. To understand and accept the true aspirations of the visually handicapped, their potentialities, their possibilities of success and their right to success.

2. To develop programmes not only for the blind but also for the partially sighted.
3. To offer comprehensive rehabilitation services where the individual will be oriented; where those with serious limitations will be helped to find their own goal and a style of life satisfactory to themselves, their families and the community.
4. More personnel shall have to be trained for integrated reeducation programmes.
5. More programmes for the blind and partially sighted with additional handicaps will have to be set up.
6. Material resources will have to be found to help those countries which do not possess adequate, comprehensive rehabilitation services for the visually handicapped. It is urgent to start a world crusade for the prevention of blindness, the restoration of sight and the improvement of existing services.
7. Better use of community resources should be one of the objectives to be sought in the future.
8. Every effort should be made to make the blind and partially sighted an active, fully integrated and happy member of society.

“NEW RESOURCES FOR THE ASSESSMENT OF THE BLIND”

by Winnie Ng, Malayan Association for the Blind, Malaysia.

The goals and objectives to strive for in any rehabilitation programme are to assist the blind clients to gain restoration and substitution in any or all of the six categories as may be applicable to the individual.

These are:

1. psychological security;
2. basic skills;
3. communications;
4. appreciation;
5. vocational security; and
6. total personality.

Hence, a rehabilitation programme is designed to assist individuals to adjust to their blindness and to provide them with teaching for living and training for a suitable vocational future so that they may live satisfying and dignified lives.

Before any comprehensive rehabilitation programme is planned for the client, an adequate evaluation of his physiological, psychological, social and vocational needs must first be ascertained so that an appropriate and effective individualised programme can be worked out.

To carry out such evaluation, certain assessment measures or tests are utilized to provide greater insights as to the client's needs, interests and potentials. Depending upon individual needs and evaluation objectives, tests of intellectual abilities, achievement, motor skills and projective techniques are used when available and possible.

It is a recognised fact that in most under-developed and developing countries, Asia in particular, very little or limited use is made of psychological tests and testing techniques to assess blind clients. This is due not to a reluctance to accept such concept of evaluation utilizing scientific measures nor to a non-recognition of their diagnostic value but rather to lack of personnel and finance. All tests require trained personnel to administer and interpret the findings. Such personnel are hard to come by in the developing countries. With limited funds, the question of priority comes in. Priority would not be given to train staff for testing programmes; it will only be given to train personnel for grass-root services. Furthermore, many agencies for the blind in developing countries could not afford to purchase many of the tests and again the question of priority intervenes, unless an international agency comes to their assistance as was done in quite a number of Asian countries. Malaysia is one such country which received international assistance and so was able to carry out some systematic evaluation programmes using scientific measures.

My paper will be concerned mainly with some systematic evaluation

exercises utilizing tests as the new resources for the assessment of the blind. Naturally, my focus will be on Asia and Malaysia in particular as the Malaysian programme is quite representative of the Asian situation with varying modifications in accordance with each national background. The evaluation and assessment programmes in the Asian set-up are concerned mainly with the need to determine the vocational potentials of blind clients particularly for supportive and unskilled occupations. Hardly any tests are being utilised in evaluating the adjustment of blind individuals to their blindness.

1968 saw the introduction of the systematic evaluation programme in Malaysia and other Asian countries which provide assessment before vocational training amongst other things. The battery of assessment exercises consisted of several performance tests developed by one of the AFOB, FERRO Vocational Rehabilitation Consultants. These exercises had been designed to evaluate the client's manual dexterity, tactile sense, memory, spatial orientation etc. They were devised to reflect the skills required to perform safely and economically the numerous job requirements found in industries. The performance scores obtained were used as selection criteria for clients' suitability for industrial training and as predictors of successful semi-skilled and unskilled job performance in industries.

Because these exercises lack local norms using only arbitrary score for each criterion performance, the reliability of the scores and the validity of the entire battery of exercise were open to question. A comprehensive review was made in 1970 and the conclusions arrived at were:

- (i) that there was the need for immediate revision of the evaluation programme with emphasis being directed to basic skills training and assessment;
- (ii) that commercial manipulative and performance tests be adopted as the assessment instruments.

This resulted in the introduction of a new pre-employment assessment and training programme in 1971 developed by the AFOB-FERO. The new methodology is geared to develop the potential capabilities of each client to a maximum degree and is based on a client-centred approach.

The Perceptual Motor Skills assessment and training programme developed by AFOB-FERO was adopted by about 50 agencies in 9 countries of Asia. It was a new scientific development in the field of evaluation and assessment of blind individuals for vocational placement in this region.

The first step in this client-centred rehabilitation programme is a thorough assessment of the new client. The next step is the assessment of the five basic skills that are essential to each client, in varying degrees, to enable him to become independent, viz.:

1. Orientation and Mobility skills.
2. Communication skills.
3. Daily living skills.
4. Social skills.
5. Perceptual Motor skills (PMS).

For the assessment of the skills listed from numbers 1 to 4, the AFOB-FERO have also developed rating scales which will provide an objective picture of each client's needs as well as his assets. Assessment of the client's perceptual motor skills is more difficult but very vital for career counselling. These skills are the basic human abilities that underlie any job activity, be it typewriting, weaving or complex performance operations in a factory. These basic skills are:

1. Speed of arm movement.
2. Speed of finger movement.
3. Gross manipulation.
4. Fine manipulation.
5. Finger dexterity.
6. Two-hand co-ordination.
7. Memory for location.
8. Tactile discrimination.
9. Memory for tactile shapes.
10. Reaction time.
11. Hand-foot co-ordination.

The AFOB-FERO Perceptual Motor-Skills assessment and training programme has selected 5 standard American Motor Skills Tests and adapted them as skills assessment and training instruments. They comprise of 11 exercises. The five tests used are as follows:

1. *Minnesota Rate of Manipulation Test*:
It consists of 2 sub-tests of displacing and turning exercises.
Skills trained: gross arm finger movement and dexterity, gross manipulation, and both hands co-ordination.
2. *Pennsylvania Bimanual Worksample*:
It consists of 2 sub-tests of assembly and disassembly exercises.
Skills trained: arm movement, and both hands co-ordination.
3. *Purdue Pegboard*:
It consists of 4 sub-tests of right hand, left hand, both hands and assembly exercises.
Skills trained: manipulation dexterity and both hands co-ordination.
4. *Crawford Small Parts Dexterity Test*:
It consists of 2 sub-tests of pins and collars, and screws exercises.
Skills trained: fine manipulation, finger dexterity in handling small parts.
5. *Stanford-Kohs Block Design Test*:
It is one test with 20 samples.
Skills trained: fine tactile discrimination and memory for location and for shapes.

The reasons for the choice of the above tests are as follows:

1. The skills trained in each of these exercises have been clearly identified by research.
2. The equipment is commercially available and its manufacture is quality controlled.
3. Reliability and validity figures are available and are based on large population samples.
4. A norm for average performance and the amount of variability (standard deviation) has been established and is used as a guideline for performance assessment.

Rules and guidelines for the administration of these exercises are compiled into a manual and published by AFOB-FERO.

Under the Perceptual Motor-Skills Programme, the various abilities are trained to the maximum of each client's capability. Each client is allowed to progress at his own pace according to his capabilities. There is no set duration for the training period. Training in each exercise is terminated when a performance plateau has been reached, that is, the client has shown not more than 5% performance fluctuation in five consecutive training days. Learning is facilitated and accelerated by utilizing behaviour modification techniques of contingent reinforcement. For each 5% increase in performance over his first day performance the client receives a reward. When a client has completed his Perceptual Motor-Skills training, learning curves for each exercise is plotted. These will provide such skill assessment information as to the rate of learning, the final level of performance attained in relation to the norm, and the daily performance fluctuations. A terminal performance profile is also constructed for all the 11 exercises which will provide an immediate visual representation of his strengths and weaknesses in various skills.

From these data it is possible to make an objective assessment of the client's skill capabilities and their relationship to skill requirements for a wide range of occupations.

The final assessment of the five basic skills, will give the rehabilitation counsellor the necessary information to recommend the client's course of training and placement.

It has to be pointed out that the potentialities of blind clients cannot and should not be predicted solely upon statistical tests. The individuals' other needs and circumstances must be considered. Thus, in addition, indepth interviews must be conducted before career planning commences. Here of course, the Counsellor has to check whether the aspirations of the client are commensurate with his academic and other skills and are realistic for a future career. If they are not, further counselling is necessary.

On completion of training, before proceeding to actual placement, an assessment is again carried out and this time on the client's readiness for employment. Assessment on the following aspects need to be made:

1. Physical readiness;
2. Psychological readiness;
3. Occupational readiness;
4. Placement readiness.

After the client's readiness has been established by the Counsellor that no further services are required of the rehabilitation service staff, steps for placement are taken. In-plant service and follow up service is provided to the client but at this point, he is expected to be completely reintegrated into the sighted society and not dependent on agencies for the blind any more than necessary.

In conclusion it should be pointed out that:

Programmes for assessing the basic skills necessary to blind clients to enable them to be independent have been carried out since the inception of rehabilitation programmes in most agencies in Asia. However, these were done on a less formalised way with no standard system. In the main, they were carried out by rehabilitation staff who had little or no training in standard assessment. Through the years, some agencies have been able to obtain specialised personnel such as rehabilitation counsellors and case workers. Others have managed to give specialised training to existing staff to carry out their assessment and evaluation programmes. However, the last seven years or so saw rehabilitation programmes being put on a more professional level in Asia. With this new development came the usage of a more systematic and scientific approach to assessing and meeting needs and skills of the blind client. The AFOB-FERO'S Perceptual Motor Skills Assessment Programme has been found useful in Asia because the greatest job opportunities lie in the supportive and unskilled occupations and motor facility is necessary in the execution of many of these jobs. However, the adoption of this programme is not without problems. There is the need to employ special staff for this purpose—a step most Asian agencies could ill-afford. Again the need for staff to be well-trained for assessment programmes cannot be over-emphasized but could be difficult to achieve due to shortage of trained personnel for rehabilitation work and also to lack of funds to recruit them if available.

The Perceptual Motor-Skills programme requires a lot of recording and plotting of graphs. Very often the personnel finds himself logged down with paper work with little time for much else.

As the programme is very individualised and as the number of staff is usually one, the number of clients assessed is limited. However, in the main, it is a useful exercise. It does indicate the strengths and weaknesses of client's motor skills; it does help as predictors of job suitability. The subsequent result is a better assessment of basic abilities of the client and a useful selection measure for training and placement and therefore a more satisfying rehabilitation programme for the blind individual.

NEW APPROACHES TO MOBILITY TRAINING

by J. K. Holdsworth, M.B.E., B.A., Director,
Royal Guide Dogs for the Blind Association of Australia,
Kew, Victoria.

This is an account of how one agency has developed an approach to mobility instruction through considering and developing relationships and identifying and using existing community resources (Holdsworth, 1972).

There have been three main stages in this approach:

1. The development of a multi-mobility aid service,
2. The identification of the total needs of each individual, and
3. The identification and use of community resources to provide for 1 and 2.

Australia, whilst developed from the standpoint of general community services such as housing, primary and secondary industry, power, education and health services, has many of its social and welfare services still in the developing stage. Although the tide of professional involvement in services for the visually handicapped is now running strongly, the overall pattern is one of services being provided in a rather uncoordinated way using few specially trained staff and being delivered through a maze of independent agencies (Ford, 1971).

As in the United Kingdom (Leonard, 1972), United States of America (Williams, 1972), and parts of Europe, the Guide Dog service was the first type of formal mobility training to be introduced into Australia. The Guide Dog service in Australia was established in 1951 as a private agency in Perth, Western Australia. Somewhat isolated from other Australian States (by about the distance from London to Moscow) the impetus was in Western Australia through the activities of Dr. Arnold Cook who used the first Guide Dog in Australia which he obtained in England whilst on Post Graduate work there.

The Royal Guide Dogs for the Blind Associations of Australia developed into a national agency some six years later, and in 1962 what is now known as the National Guide Dog and Mobility Training Centre (Subsequently referred to as the National Centre) was transferred to Melbourne in the State of Victoria where a purpose-built residential centre was established (Hamilton-Wilkes, 1970).

During the following few years the National Centre remained as a Guide Dog service only. At the same time there was growing concern over those clients who wished to, but were unable to use the Guide Dog. There were a number of reasons for such inability including age, health, degree of orientation skills, whilst some of course, just did not want to use the Guide Dog. One of the most common reasons for this inability was the lack of basic skills in orientation and mobility by the

individual concerned. At that time there were no other formal mobility services as an alternative.

In order to meet the needs of such people tentative moves were made to introduce long cane travel. Looking at the way in which mobility services were provided throughout the world the scene was very varied. Most agencies provided only one type of mobility service using either the Cane or the Guide Dog. Within the group providing Cane travel there was a great variation from the "issue of a walking stick and the slap on the back" approach (Suterko, 1972) to well programmed courses conducted by Masters Degree Graduates in Orientation and Mobility. The use of mobility aids seemed to vary from the use of an ordinary white walking stick as primarily an attention gathering device in order to solicit aid from sighted people, to a more skilled use of the Cane as a protective device to avoid human contact with obstacles, to yet more sophisticated uses of the Cane as a monitoring travel tool. Then there was the use of the Guide Dog as an obstacle avoider and some tentative use of electronic aids as information gatherers or environmental sensors.

The Israeli Mobility Centre at Kiryat Haim was an exception to these concepts as it offered training in Guide Dog and in Long Cane work at the same Centre (Holdsworth, 1968).

As rehabilitation services for the visually handicapped were still in the developing stage in Australia it seemed that there was an opportunity to break away from the traditional approach of agencies restricting themselves to the provision of mobility services with one aid. Would it not be possible to have a broadly based mobility centre providing quality instruction with a variety of proven or even experimental aids. Thus the first stage of this new approach to mobility was the development of a multi-mobility aid service, in which it was possible for clients to be taught the use of a number of aids if necessary, and in the case of the Kay Ultrasonic Spectacles, taught to use two aids simultaneously.

At this point a rather major error occurred in the assumptions upon which this developing program was based. It was thought that because the National Centre had qualified Guide Dog Instructors who were skilled in the teaching of one form of mobility such Instructors could quickly become equally skilled in the teaching of the use of the Long Cane. This assumption was incorrect in that it failed to take full account of the subtleties of using this travel tool and it failed also to take account of the depth of knowledge of sensory processes which are so necessary in what is commonly known as orientation and mobility. However, some clients were taught to use the Long Cane, perhaps not to the highest level of their potential, but at least with safety within the individual's limited travel goals. Observation of the travel performance of visually handicapped people who had been taught by graduates of the United States University Masters Degree programs in Orientation and Mobility, together with studies of the curricula of those schools and of the National Mobility Centre in the United Kingdom, led to the conclusion that Australian Orientation and Mobility staff needed similar specific training if visually handicapped clients were to have the type of services likely to result in the development of maximum independent travel skills.

As no school for the teaching of Orientation and Mobility Instructors existed at that time in Australia it was decided to send one of the staff members, a qualified Guide Dog Instructor, to the American Foundation for Overseas Blind School in Kuala Lumpur, Malaysia.

The first trained Orientation and Mobility Instructor on the staff soon demonstrated the value of such training in the detailed special and skilled instruction which he was able to impart to his clients. Thus Guide Dog and Orientation and Mobility services began to work side by side at the one National Centre.

Attendance at the International Conference on Sensory Devices for the Blind in London, 1966 and study of the subsequent report (1966) stimulated interest in the potential of electronic devices in the field of mobility. Evaluations of the Kay Sonic Torch were carried out and later mobility instructors taught the use of this aid to a limited number of visually handicapped clients who had expressed interest in using the instrument. Some clients did well in using the torch as a mobility aid, but enthusiasm for it and success with it were not uniformly high.

Subsequent continuing discussions with Professor Leslie Kay of the University of Canterbury, New Zealand, led to a course at the National Centre for already qualified Mobility Instructors in the use of the Ultrasonic Spectacles. A seminar on Mobility sponsored by the Royal Guide Dogs for the Blind Associations of Australia at which Professor Kay was a principal speaker, served to introduce the Ultrasonic Spectacles to agencies throughout Australia. Courses for visually handicapped people in the use of the Kay Spectacles followed, and the National Centre co-ordinated the Australian section of the international evaluation of the spectacles (Kay, 1972). Study of the final report of this evaluation (Airasian, 1973) indicated to the National Centre that the experience of those trained in the use of the Ultrasonic Spectacles in Australia was that they seemed to find greater success and value in their use than did others elsewhere. It is felt that one reason for this might lie in the enthusiasm of the Instructors.

Other electronic aids were added to the range of mobility aids at the National Centre. These included the Mowat Sonar Cane and the Mowat Sonar Sensor (a small hand held device), both of which display a vibro-tactile signal. Limited numbers of these two devices have been used by visually handicapped people taught at the National Centre and an extended evaluation of the Sonar Sensor is planned for 1974.

In the development of the work with electronic aids, the Commonwealth Acoustic Laboratories, an Australian Government agency, gave regular support in carrying out audiograms on clients and assisting in the development of new designs of ear moulds for the electronic devices using audio signals. Subsequently other sections of that agency carried out more intensive research into the Kay Ultrasonic Spectacles.

So far this account has tended to concentrate on the aids, but the needs of people were not neglected. Concurrently with the described developments, Dr. Bruce Ford, a Medical Rehabilitation Specialist was carrying out an in-depth study of the clients' medical, social and psychological needs. This three-year study (Ford, 1971) clearly showed the necessity of considering the client's total needs in conjunction with

his mobility requirements. It was demonstrated that to consider the individuals mobility requirements in isolation was unlikely to lead to long term success and in some instances could damage the clients health prognoses. For example:

1. In the medical area, diabetes and heart conditions might well effect exercise tolerance. Postural and gait defects, if not attended to could affect the clients mobility performance and could lead to further medical complications.
2. The client's social situation involving perhaps the acceptance of his independent mobility by his family could also materially effect the clients mobility performance.
3. The clients psychological needs might include the development of a realistic appreciation of self, the overcoming of the feelings of stigma or of being less than equal, all of which could affect the clients total well being and thus his performance in mobility as part of his general life style.

Having established a National Centre where mobility and the various aids to mobility could be dealt with without prejudice and with proper consideration of the clients needs and abilities, further having determined the wide range of needs which should be considered in conjunction with mobility, the question now remained as to how these needs could be met. This led to the third stage in this approach to mobility.

Traditionally many agencies for the blind had attempted to provide the full range of services thought to be needed by their clients (sometimes known as the cradle to the grave concept) (Ford, 1971). Having had the range of individual needs professionally identified in actual instances, it became obvious that no single agency would ever be likely to provide the full range of required services. Many of these needed services were already existing in the community as part of the normal community services. The question was could such services, and should such services be used for visually handicapped clients.

It seemed that there could be several advantages to using existing resources, both the general community services and other specialised services, for the visually handicapped (Holdsworth, 1972). These advantages include:

1. That clients would have access to the full range of services throughout the community.
2. That the use of such services would spread knowledge about the needs of the visually handicapped through a wide range of community service professionals, e.g. the Government Departments of Health, Welfare, Education, Hospitals, Homes for the Aged, etc.
3. That it might produce a reduction in the likelihood of the stigmatising and labelling of clients which can come about where clients are obliged to receive all their services through special "blindness" agencies (Holdsworth, 1970).

These advantages were considered to have the potential of making a smoother more comfortable integration into the community for the

client. Subsequent events seem to demonstrate that these hypothesised advantages have proved to be advantages in fact. For example there has been a reduction in the calls for after care services from clients, indicating an increased ability by clients to manage their total range of needs.

A senior member of the National Centre staff, a Social Worker additionally qualified as a teacher of the blind, was given the task of developing relationships with other agencies such as hospitals, Government Departments of Labour, Social Security and Health and other agencies for the blind, with the initial aim of opening up two-way channels of referral.

Thus such agencies would refer visually handicapped clients to the National Centre for specialised mobility services whilst the National Centre would refer clients to the other agencies for additional needed services. In particular the services of Physiotherapists were frequently used to alleviate postural and gait problems. Psychologists were used to advise Mobility Instructors on procedures for teaching clients with additional handicaps such as brain damage and learning problems. A range of medical specialists provided diagnostic and advisory services. This outreach to the community worked well for the clients and was able to be extended to link up with needed services in the clients home States. In addition it was an economical use of resources.

The advantages of this outward look by agencies towards other community groups has been supported by others with the "object of helping to ensure that services for blind persons are a significant and integrated part of the entire human service system" (Davison, 1973).

It also became apparent that many health and welfare organizations where blindness may occur had little or no knowledge concerning blindness. Hospitals were particularly noticeable in this group. To attempt to alleviate this situation with the object of having more appropriate services reach the clients more quickly, in addition to facilitating what is frequently called general patient management in such settings, Mobility Instructors together with the Social Worker acted in teaching capacities to the staff of particular wards in some hospitals. Short courses were established at the National Centre for nurses, social workers and other para-medical workers in order to give some introduction to these groups to the dynamics of blindness, resources available, relationships which could be developed for the benefit of the client and basic Orientation and Mobility techniques which could be used in such settings.

Increasingly the staff of the National Centre are being called upon to act in consultative capacities to such groups where there are visually handicapped patients, and similar short limited objective courses are being increasingly requested by Government and private agencies.

Other changes which have occurred include:

- (a) An increasing awareness of the needs of visually handicapped people in hospitals and other settings not specifically designed for the blind. Connor and Muldoon (1973) point out in this regard that many of the needs of the blind are the needs common to all people and some are shared by all handicapped.

- (b) A change has occurred in the understanding of what constitutes the National Centre's clientele, not only is it now seen to include individuals and families, but also other agencies, wards of hospitals, staffs of organisations, and vocational settings where blindness may occur and volunteers who may be involved in many of these settings.
- (c) Another noticeable change has been the inclusion of segments on blindness in courses for paramedical and social workers conducted at Universities and other Centres of Advanced Education.
- (d) The referrals of visually handicapped clients from hospitals and similar sources are now occurring earlier.
- (e) Clients seem to have become more aware of their own resources and how they may develop and use individual and agency relationships.

An example of how this two-way use of resources can be used has been demonstrated by a small pilot program in the Victorian Mental Health Authority setting for mentally retarded children known as the Kew Cottages, Melbourne. A number of these children are also severely visually handicapped.

The National Centre staff acted in a consultative role to the Mental Health Authority staff and to volunteers of the Kew Cottages. The National Centre Orientation and Mobility staff teaching role was backed by the specialised knowledge of the Cottages staff and finally the work of both groups was supplemented and re-inforced by the work of volunteers.

Other multi-handicapped clients used the National Centre's services, although it was always borne in mind that blindness was not necessarily the handicap most demanding attention.

This program developed in 1973, will be carried on in 1974 with the National Centre Orientation and Mobility staff continuing to act in a consultative role with the Cottages staff providing professional support and a trained volunteer force continuing to support both groups. The number of blind mentally retarded children involved has been small, but the significance of the project may well be in the method as a model.

Yet another development has been the purchase of services provided by this Centre by the Government Department of Repatriation (the equivalent of the American Veterans Administration).

The lack of training programs for Orientation and Mobility Instructors was referred to earlier in this paper. Although one or two agencies had sent some staff members to the American Foundation for Overseas Blind School in Malaysia and to the National Mobility Centre in the United Kingdom for training in Orientation and Mobility, it became clear that an Australian School was desirable. Western Michigan University in the United States gave willing support to this project by releasing Associate Professor Stanley Suterko, Department of Blind Rehabilitation, for extended consultations in 1970 and again in 1973 (Blasch, 1971). At the time of Professor Suterko's first visit the co-operation of a few major agencies in Australia was obtained and subsequently under the auspices of the Australian National Council for the Blind and the Australian Council for Rehabilitation of Disabled

courses for Orientation and Mobility Instructors commenced in 1971 at the National Centre.

Two Graduates from the Masters Degree course in Orientation and Mobility at Western Michigan University conducted the six-month courses, and supporting lecture series were obtained through universities in the areas of Ophthalmology, Helping Relationships, Educational Psychology, Psychology of Perception and other related subjects.

To date twenty-one graduates have completed the course and are now employed by some ten schools and agencies throughout Australia. In 1974 this Course will be lengthened to take up the whole of an academic year and moves are being currently made to establish the school more formally in a tertiary education setting. The development of this School has been particularly significant as it represents the first attempt in Australia to train staff specifically for work with the blind, apart from the courses previously established for the teachers of blind children. One additional effect of the development of this School for Orientation and Mobility Instructors has been an increasing interest shown by agencies in having their staff more fully trained. This has been evidenced by a course for Welfare Officers held at the National Centre in 1973 and a proposal for a course for Managers to be held in 1974.

As far as the client services of the National Centre itself are concerned, the Guide Dog training segment has continued with better results through the use of specially bred stock. Currently a special three-year breeding program is being undertaken to determine to what extent the qualities of hybrid vigour can extend to the characteristics required in Guide Dog work. This research is being fully supported by an international commercial group again adding some force to the concept of the use of community resources. Some members of the staff of the National Centre in addition to being trained as Guide Dog Instructors have now become Orientation and Mobility Instructors, thus strengthening the total team.

The most recent development has been that of providing an orientation and mobility service to visually handicapped people who were unable for one reason or another to come to the National Centre for service. There seems to be a great need for domiciliary services of this nature. As a National organization it was possible to post Orientation and Mobility Instructors to work in the various States and by the end of 1974 such staff will be working in each of the six States.

The problems involved in such a service are that it tends to be expensive both in the use of Instructors' time (who can only travel to say perhaps two or three clients each day) and because of the large distances involved in the average Australian capital city it becomes expensive for transport too. However, we are equally confident that there are community resources both in facilities and manpower which can be brought to bear to solve this question.

Whilst some changes have been achieved in providing what is considered to be a more rational mobility teacher service and although the use of community resources not specifically designed for the visually handicapped have proved to be effective and efficient, a problem still

remains in that most of the aids and the training courses to use them have been designed for totally blind people. It has seemed extraordinary to hear at times from staff members such comments as "He has too much vision to learn the use of the Cane/Dog". The problem was not the vision but the way in which the teaching courses were constructed. The point has been made many times in discussions on low vision that only a small proportion of the visually handicapped population are in fact totally without vision. Genensky (1971) comments on the unnecessary problems raised by the all too frequent dictomising of the blind and the seeing. Jane Finnis (1973) and Goldish and Marx (1973) add to the current upsurge of interest in the question of residual vision, pointing out the particular problems of being "hard of seeing" and the present paucity of services for that large and difficult to define group.

From the point of view of mobility services it seems clear that we need to develop better understanding of visual functioning difficulties in the individual together with some truly imaginative programs designed to help the low vision or hard of seeing client to make maximum use of what remaining vision there may be. All too often one suspects that teaching methods in mobility have tended to push residual vision into disuse.

Mobility teaching procedures need to be infinitely flexible to accommodate individual desires, needs and abilities. Such flexibility places much heavier stress on the Instructor as his paramount concern must be his client's safety, but an inflexible stage-by-stage program may well reduce the ultimate performance by some rather than encourage the development of maximum potential.

These are seen as the current challenges together with the re-appraisals of service delivery methods. Special purpose centres have a number of advantages, but may restrict the individuals personal control over his activities—a quality he will certainly need to the full on leaving such a Centre.

The future may well see this National Centre becoming more of a resource centre with research and demonstration units and playing a stronger consultant and teaching role for specialists, volunteers, families and those coming in contact with visually handicapped people. It seems that we need to develop more flexible teaching programs and one wonders whether a self learning situation for recently blind people using skilled resource personnel might be more valuable in producing on-going learning motivation (Klausmeier & Ripple, 1971).

This program has demonstrated that the use of community resources is both valuable and desirable from the point of view of providing fully adequate services for the visually handicapped and providing such services in a way which avoids the effects of stigma and labelling which have so often been apparent in the past as by-products of services by agencies for the blind.

Finally, and probably most importantly, the use of community resources in the way described has enabled clients to take a greater part in the direction of their programs and to more effectively and comfortably relate to and manage their environment including the many personal contacts who make up the community in which they live.

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UTILIZATION OF LOW VISION IN ADULTS WHO ARE SEVERELY VISUALLY HANDICAPPED

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INTRODUCTION

As professional people concerned with the education and rehabilitation of a segment of our population, we have been most imprecise in communicating just who we are concerned with and have lumped people who have only one common characteristic—that of impaired vision—as a homogeneous group called “blind”. At the same time, we have used restricting terminology for the purpose of legal and economic efficiency rather than for the concern of the individuals who constitute the population. Dr. Rusalem (1972) emphasizes that in using a “blindness” scale, we talk about people who are totally blind, those who have limited use of vision in most situations, those who may be able to use vision effectively in most situations, and those who may be able to read newspaper print as if they were a common group of people. Statistics show us that 89 per cent of the “blind population” have some degree of residual vision (Goldstein, 1972). Therefore, emphasis has been directed toward helping people to compensate for *lack* of sight through focusing on other senses rather than on trying to teach adults to *continue to* or to *learn to use* residual vision effectively.

Further confusion occurs when we fail to differentiate clearly between adults who have had limited residual vision throughout their lives and those who have had maximum visual abilities for most of their lives but who begin to lose visual capabilities in adulthood or in old age. The needs of these two groups in learning to use or in maintaining their use of vision are quite different, yet our tendency has been to treat these adults as if they had common characteristics and should be able to function efficiently under the same educational and rehabilitative program. This state of confusion has led us, in both education and rehabilitation, to treat people in ways which encourage them to fit a contrived label of “blindness” rather than to teach them to reorganize their functional behavior so as to capitalize on and strengthen the utilization of any vision which they may have had all along or have retained.

DEFINITIONS

Historically, the tendency has been to rely upon acuity measurements for distinction between those eligible for services and those for whom no legal or medical justification can be made for need of services. Once that measurement has been recorded, little consideration has been given to the variety of functional levels exhibited by persons who fall within the medical eligibility criteria. We do know that some persons

at the upper end of the acuity measurement criteria function as virtually totally blind individuals; conversely, many whose measured acuity is at the lower end of the scale consider themselves and function as seeing people. Dr. Richard Hoover (1957) has suggested that the "term 'blind' be reserved only for those who are unable to see light or to take direction from it." Another definition has been suggested which says that "a person is blind to the extent that he must develop alternative techniques for accomplishing efficiently those things which would readily be done with sight." This might be called a behavioral definition. Many other definitions have been offered such as "economic blindness" which relates solely to the capacity of the individual to function visually as far as his earning power is concerned. A variety of functional definitions have been offered which suggest that a person is blind to the extent that he is able or unable to function in his own situation and for the purposes for which he desires. Other definitions ignore the individual behavioral characteristics and focus upon the eligibility for services within the system regardless of need or visual abilities of the person. A more restricted definition but with focus again upon functional characteristics suggests that blindness be defined upon the basis of the person's inability to read newspaper print with or without magnification.

Accepting the fact that we cannot now and possibly may not in the near future be able to agree on definitions of blindness, I believe that we can still focus upon the concerns of persons with severe visual impairments who have useable residual vision—neither have had throughout their lives or are able to maintain use of, even though they experience progressive loss in visual capabilities. Therefore, for the purposes of the following discussion I shall be adopting Dr. Hoover's suggestion and talk about all those persons with visual impairment who have sufficient vision to see light or take directions from it and use it for functional purposes because "a little residual vision makes a big difference" (Rusalem, 1972, p. 15).

PRIMARY CONCERNS IN THE USE OF RESIDUAL VISION

Personal Factors and Self-Image

How a person sees himself is recognized as one of the primary determinants of how that person is likely to behave. By use of the label "blind" for persons who have useable vision, we are actually saying to them "You must see yourself as a blind person." Therefore, they begin to view themselves as different people and, indeed, we often say they are different people with the expectation that they will behave as different people. It is a well-known fact that people with residual vision often arouse irritation and annoyance in others and even in those of us who consider ourselves professional, because in the period of adjustment and reorganization they appear awkward, they may bump into things, and they may assume very unusual postures and functional behaviors in an attempt to continue to use the vision which they have. However, we also know that if a person sees himself as capable of retaining some visual ability and using vision for personal care and continued independence, he/she will maintain an interest in using sight.

Motivation to continue to be independent and to continue to function is one of the primary factors related to effective and efficient use of residual vision. Losing vision need not mean total and complete loss of efficiency in all aspects of life, although if education and rehabilitation continue to use the word "blind" for those who retain or have usable vision, then we may force them to fit that model—that label—and to begin to see themselves not as *having* visual ability to function but as *lacking* ability to function as a visual person. How the person sees himself is more related to how he is likely to function than are any perceptions of others or any measured criteria. Some people whom professionals considered virtually blind by all measures and observations do not at all consider themselves blind and continue to function very efficiently and effectively in their own situations; whereas, others consider themselves blind and behave as though they were, when in actuality, all measures indicate the potential for very effective visual ability. Perhaps then our first consideration should be an attempt to focus upon what the person *has* and can *make use of* rather than upon how much he has lost of what he once had or how much he doesn't have of what we think he should have.

Functional Needs and Capacity

Individual personality characteristics as well as the person's image of himself as a human being are primary factors in attempting to differentiate the functional needs and capabilities among persons who are to make effective use of residual vision. Therefore, rather than focus upon a medical measurement or a legal eligibility factor, attention should be given to: What does this person need to learn, or to what does he need to adapt in relation to his own life? Additional questions to be answered will be: To what degree has the individual previously utilized his visual ability and to what extent can he continue to utilize vision in certain aspects of his life? What can he continue to do in his real life situations within his home, in his/her vocational pursuits, or in social relationships? Has the person been accustomed to traveling independently? If he/she has, then this is an area in which attention should be directed so that this independence in travel can be maintained to the highest degree possible, even though it must be adapted to the restrictions imposed by less visual capacity. Has the person been a reader? If he has, then adaptive measures to permit him to continue reading visually is an important consideration; but, on the other hand, if the person has not been one who read a great deal, then this is of less concern for that particular person. The stress here is upon being able to qualitatively assess the differences in needs of individuals rather than assuming that needs are common just because there is a reduction in visual ability. The primary objective will be to focus upon the assistance which will enable any individual to continue to function in similar ways to which he is already accustomed and committed, but not to stress functioning for individuals who have never had a need to perform in that way previously. Until education and rehabilitation can make plans on a differential basis for individual needs and interests, then we are likely to be very ineffective in assisting people to make effective use of residual vision.

Visual Restoration, Optical Aids, and Adaptive Visual Training

In rehabilitation and education, we are concerned with assessing the potential for restorative services such as surgical procedures, medical treatment, and continuous referral and consultation with ophthalmologists. Too frequently, we are inclined to accept a diagnosis as definitive and to consider the matter closed. New surgical techniques and medical procedures are being developed all the time (Valvo, 1971) so that it is necessary for persons with structural impairments, ocular pathology, and medical conditions to be re-examined frequently. This means that ophthalmologists must be a part of the rehabilitation team for all adults and that we have the responsibility to refer on a continuing basis all persons so that it may be determined whether or not there are new techniques or procedures which might be of benefit to the adult with residual vision as well as those who are totally blind. Although many of the medical restorative procedures may not restore the ability to see with great clarity or to use sight for all purposes, any restoration of visual capability will be of benefit to the adult.

The under-utilization of optical aids is one of the most neglected areas in the rehabilitation of individuals with residual vision (Rusalem, 1972; NINDB, OSTI Report, 1971). The prescription and fitting of the wide variety of available optical aids is a skill requiring much time and patience on the part of the adult as well as the vision specialist who may be prescribing and developing the lenses and aids. It is true that the longer an adult has been "blind" or the less flexible he is in adapting to new styles of functioning, the more difficult it is for the person to assist in fitting optical lenses and aids for his own personal use. Many visits and many lenses may need to be tried, rejected, re-tried, and often changed or modified over a period of many months and perhaps even years. The patient has to learn to use restored vision to his own satisfaction; and, at the same time, he needs the support, assistance, and suggestions of the specialist in helping him achieve this satisfaction. Regardless of whether the restorative process is accomplished with surgery or with some type of optical aid, there will be many changes in *what* and *how* the person sees. Not only will there be changes in actual acuity, but changes in visual versatility, visual capacity, in the size of what one sees, and in distance and spatial relationships. Time must be given for adjustment to these "distortions" which may be experienced. Along with many other factors which will be identified later, the previous visual experiences of the individual will greatly influence responses and cooperative abilities in the fitting of optical aids. Since not all optical aids and devices are actually fitted and worn by individuals, we should not overlook the possibilities in projection devices, close circuit television systems, or hand-held magnification devices to increase visual functioning in many adults for variable specific purposes.

Regardless of whether vision has been restored or the individual is learning to make use of residual vision after having lost or while experiencing loss of vision, adaptive visual training is a necessity if the adjustment to effective use is to be achieved. After the thorough examination by the specialist and in keeping with his/her recommendations, the next step is for the rehabilitation teacher or person who will assist in the

adaptive training to determine the nature of visual activities needed or desired by the individual. In what day to day functioning does the person want to use his vision? To what extent does he wish to utilize vision and/or aids in independent travel? Are the aids to be used in vocational settings or pursuits? Does he want to continue reading in the home? What has been prescribed may have been one lens, a series of lenses including both microscopic and telescopic power, even no lenses at all. Regardless of the situation, the adaptive training must be designed for the individual and for the purposes of visual functioning he desires.

The first part of the training will be to help the person develop some understanding of his visual loss, how it may limit him, but more importantly, to what extent he may use the remaining vision effectively. To support the individual in terms of encouragement and suggestions for exploration of new ways to function is an important part in the learning to adapt.

Another aspect of training may be that of exercises of a rather physical nature which assist the individual in focusing, in accommodative ability, and other types of eye movements. Adaptation will need to be directed toward gauging distance; learning to make modifications for distortion, which is a necessary part of prescriptive optical aids; determining the appropriate illumination for particular tasks; and even to develop a modified procedure for the recognition of letters and words. There will need to be some adaptation to the accommodative process for learning to read at from one to six inches rather than from fourteen to sixteen inches. The primary concern in adaptive visual training is to give the support, assistance, and help each individual needs to achieve the greatest possible degree of efficiency according to his visual demands (Fagerstrom, 1971; Farrer, 1971).

Vocational and Occupational Considerations

One of the first tasks for teachers and rehabilitation persons is to understand the different requirements and to provide opportunities for different occupational considerations between those who are totally blind and those who are legally blind but have useable residual vision (Lukoff, 1972; Rusalem, 1972; NINDB, OSTI Report, 1971). Many individuals who have vision restored or who lose vision can continue in useful occupations, return to their own homemaking chores, and continue to lead the same active lives they have previously led provided consideration is given to the potential for continued or adaptive functioning. Little attention has been given to the role of vision in performing certain vocational skills. Because of the lack of research in this area, many rehabilitation counsellors and employers have made erroneous assumptions about the degree of vision necessary for persons to function effectively in the performance of certain occupations. For this reason, very few persons with residual vision have been placed in positions requiring them to make use of vision. However, some agencies have begun to open up new possibilities and to focus upon the vision which the person has and not upon what he does not have. The following list of occupations are now filled by persons with limited but useful residual vision: Stock clerk, mail clerk, accountant, library assistant,

chef, night watchman, construction worker, house painter, nurse, water ski manufacturer, electronic technician, television repairman, real estate salesman, school crossing guard, security guard, bridge attendant, and medical doctor (Rossi and Marotta, 1974). *All* of these occupations require the person to use his residual vision in the performance of his duties. Not all persons with residual vision can do any of these things perhaps, but the real challenge must be that the decision is made on the capacity of the individual to function efficiently and effectively rather than upon any measured acuity or labeled categorization which prohibits the opportunity to be vocationally productive.

Independent Travel and Mobility Concerns

Since the development of the long cane and mobility training programs, we have struggled in trying to apply a program designed for totally blind individuals to those who have useable residual vision; but, unfortunately, few adaptations have been made to this program and virtually no research has been done to provide understanding of the way low vision functions in movement and travel. There are some who suggest that a special low vision or residual vision training program is needed in the field of mobility to meet the functional and adjustment needs of persons who can use their vision for independent travel (Apple and May, 1971). There are many unanswered questions such as: What does the person see and at what distance and under what conditions, such as the time of day, whether it is cloudy or sunny, whether he is traveling in urban areas with many landmarks available or whether he is attempting to travel in a more rural environment where there are fewer landmarks available? Much attention must be given to assisting the low vision adult in recognizing new clues or continuing to use visual clues in his environment for purposes of movement. Even if the individual can only make out the outline of a tree trunk, the form of a mailbox, streetlight, fireplug, or part of a street sign, he can use these as indicators for his movement. Careful attention must be given to the selection of a variety of environments for training and to match the training to the visual capabilities of the person in that particular environment. Individuals can learn that a dim object near at hand may be seen as well as a bright object at a distance and to use many factors as a basis for making a decision as to the distance of the object from him. There are several critical areas in use of residual vision in movement and travel which need to be considered and must be a part of teaching for the adult. These include:

1. The ability to locate and fixate on objects at varying distances and in different levels of illumination—both stationary and moving. The person needs to notice viewing angles and make an actual visual search by holding the head still and blinking to assist in the accommodation.
2. The ability to pursue visually movements in a single direction, a circular pattern, horizontally, vertically, etc. Targets with very slow movements should be viewed initially and then with a gradual increase in speed so long as the individual can follow them.

3. The ability to make accommodations rapidly and with accuracy by focusing on a distant object and then a near object until a degree of efficiency has been achieved.
4. The ability to adapt to a variety of lighting conditions from dim to bright. The use of both stationary and moving objects and such adaptive devices as dark glasses, hats, hand as a shield, etc. should be utilized.
5. The ability to call upon visual imagery and practice visual recall in the recognition of form and movement so as to enable the individual to use the vision he previously had or to learn to use that which he has not learned to use and to keep visual memories alive.
6. The ability to estimate and make decisions in regard to space and direction in relation to the use of his own body as well as the body movements of others.
7. The ability to utilize information from a wide variety of situations and distances in the minimal period of time (Apple and May, 1971).

The process of learning to use residual vision in efficient and independent travel may take some time, great cooperation on the part of the individual according to his needs and desires, and much flexibility and creativity on the part of mobility instructors in focusing upon the vision the person has rather than occluding the person and treating him as if he had no useable vision for travel.

PERCEPTUAL REORGANIZATION OR VISUAL PERCEPTUAL DEVELOPMENT

The process of vision is as much a function of the brain and the mind as it is of the eyes themselves; one may have sight but yet lack visual capacity and efficiency. Even when acuity is poor, the brain receives visual impressions and combines them with other sensory information; it is not necessarily the poor vision that causes poor functioning, but it is what the brain does with the visual information in terms of making use of it and relating it to stored memory and to previous experiences (Faye, 1970).

The reorganization of visual perceptual impressions and the learning in visual perceptual development are two different processes and must be considered separately. Therefore, the first consideration will be for the individual who has had "normal" visual abilities and has lost them so that he now has what we term low vision. In these cases the process is one of reorganization of the mind in relation to unclear, distorted, or limited visual input. The person losing vision or who has lost vision must be taught to continue to attend to all visual objects and materials. This will require a great deal more energy and concentration on what one is seeing. It will be necessary to study forms and outlines and be able to mentally relate them to things which have previously been seen and which are stored in the mind as visual memories. The person learns to use the brain more to exercise his imagination and his deductive reasoning in order to make inferences and tentative decisions on the basis of very limited visual cues. In other words, the individual must learn to think visually at all times (Valvo, 1971). As the person looks with greater concentration, makes associations with visual memory, continues to move through and keep contact with familiar environments, and thinks visually, the more efficient will be the perceptual reorganization process. The mind is learning to relate to visual information and is organizing itself in a different way in regard to the visual input. As more and more deductions, inferences, and decisions are made using residual vision, the more effective the person becomes in functioning. Obviously, there are many psychological factors involved in this reorganization process. For the adult who sees himself as having lost what he once had, rather than having retained part of what he once had and used, the perceptual reorganization will be impeded, whereas, one who wants to continue functioning visually and who is permitted and encouraged to continue using remaining vision will be able to accomplish the perceptual reorganization much more rapidly. The opportunity to continue with similar visual experiences and functioning as the person has previously experienced will help to eliminate the fear and uncertainty associated with loss of clarity in visual functioning. The usefulness of remaining vision depends to a large degree on the use to which it is put; the person who continues reading, even with difficulty or quite slowly, who continues writing for his own

use and for others, the person who continues watching television and expects to see and be able to interpret what he sees will continue to do so with much greater efficiency. One of our problems in education and rehabilitation has been the fact that too little attention has been given to the reorganization or development of perceptual skills in relation to vision. We have not spelled out the specifics of how to train a person to utilize remaining vision to his maximum capabilities. Until we attend to this in experimentation and research, we will probably continue to teach adults with residual vision to be *blind* rather than to continue to function *visually*.

For those adults who have been blind from early in life and have had some visual capacity restored or those who have had very limited visual abilities throughout most of their life, the perceptual development process is somewhat different. Never having learned to use the eyes themselves as a means of surveying the environment and the objects and materials within it, the individual has to build up a store of visual impressions and memories before he can experience effective use of vision. In the case of the person who has had vision restored after having been totally blind, the visual world can be quite confusing and overwhelming (Valvo, 1971). In fact, the individual may be so confused that there is a tendency to keep from using the vision which one has. Studies of persons who have been given visual capabilities for the first time in adulthood have shown that the process of visual perceptual development is like that of a young child learning to see and learning to recognize what he is seeing and to use vision in his functioning (Valvo, 1971; Von Senden, 1960). The process of development and suggested stimulation and training approaches have been delineated in a previous publication (Barraga, 1970).

Discussion

As the majority of the populations, in developing countries, live in the rural areas, the specific problems of the visually handicapped in these regions were discussed at length. It was pointed out that these blind people often walk bare-footed and, consequently, may need special mobility training. In Australia there exists a large number of blind farmers, who own their farms and have the tendency to use a guide-dog.

Delegates agreed with the view presented by the representative of Columbia that rehabilitation of the visually deficient should be placed in the social context. They also concurred with the ideas expressed in Dr. Barraga's paper as regards maximum utilization of low vision in severely visually handicapped adults and recommended that a resolution be submitted for approval to the General Assembly so that these people may receive proper education and rehabilitation and be given appropriate technical aids.

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PROFESSIONAL SESSION 5

Monday morning, August 12, 1974

THE EMPLOYMENT OF THE BLIND

Chairman: Professor Tibor Vas, Hungary

REPORT OF THE COMMITTEE ON PROFESSIONAL AND URBAN EMPLOYMENT

by Dr. Horst Geissler, Chairman

The Executive Committee of the World Council for the Welfare of the Blind elected me as Chairman of the Standing Committee on Professional and Urban Employment in its session in New Delhi, 1969. I appointed as committee members: Mr. Colligan (UK), Mr. Hafizof (USSR), Mr. Igra (Israel), Mr. Kefakis (Greece), Mr. Lindqvist (Sweden), Dr. Pielasch (GDR), Mr. Rajhi (Tunisia) and Mr. Rives (USA).

The Committee met three times in all, in Stockholm in November 1971, in Geneva in April 1972, and in Tunis in October 1973. As guests the President of WCWB, Dr. Charles Hedkvist, a representative of the ILO and representatives of the Swedish Labour Market Board participated in the meetings in Stockholm and Geneva.

In the first session the Committee pointed out that according to the Declaration of Human Rights adopted by the United Nations in 1948 the blind also have the right to work. In the opinion of the Committee, society is under an obligation to help the blind to exercise this right. The Committee also pointed out that work is more important for the visually handicapped than for others, since it is necessary for them both psychologically and physically and because it influences to a high degree the social prestige of a person. In principle, the blind should not be excluded from particular occupations nor should certain jobs be reserved exclusively for them. The blind person himself should be able to decide what he feels he can do. For this reason a free choice of profession has to be guaranteed as a matter of principle. In addition, the Committee was of the opinion that society is obliged to help the blind in finding a suitable place of work and to equip this with all of the necessary and possible aids and that the choice of the aids to be considered should be left to the blind person. Finally, the Committee made the point that the difficulties encountered in finding employment for the blind are rooted in prejudice, lack of understanding and insufficient training. In the highly developed countries another factor to be considered at times is that industrial and administrative automation often results in various degrees of transformation. Thus, it is necessary, in order to facilitate the integration of the blind into the working

population, to appeal to the understanding of the sighted as well as the readiness of the blind.

The Committee resolved to establish two sub-committees under the chairmanship of the committee chairman. One sub-committee should deal with the questions of professional and commercial employment, while the other sub-committee is to deal with questions of the blind in industrial, craft and sheltered occupations. The first named sub-committee met in Bonn in October 1972. Having regard to the financial position of WCWB, the Committee thought that the second sub-committee should only consult informally.

Recommended by President Dr. Hedkvist, the Committee resolved at its Stockholm meeting to carry out a survey on the vocational situation of the blind in 36 countries. This survey should be of use for the blind, the public administrations and the employers. The Swedish Labour Market Board was asked to undertake the project because its representatives declared that it would be ready to do so. ILO was asked to support the project. The result of the study is available. It was published in English in 1973 by the Swedish Labour Market Board in co-operation with WCWB and ILO. The Committee for Rehabilitation of the European Regional Committee discussed and supported the survey at a seminar in Brussels in May 1973. The information in this field will continue by a new service set up by the ILO. Its Vocational Rehabilitation Section will provide a special documentation service in the field of the blind and visually handicapped called ILO/WCWB—BLINDOC. The main objective of the service is to keep blind organizations and responsible agencies throughout the world abreast of significant new developments and techniques associated with vocational guidance, assessment, training (including mobility training), vocational preparation and placement of the blind in open and sheltered employment.

Under the aegis of the Committee, the Blinden-und-Sehgeschwachenverband of the German Democratic Republic arranged an "International Symposium on Questions of Blind People having Graduated from Universities or Training-College under the Conditions set by the Scientific and Technological Progress" in Berlin in May 1972 with participants from 45 countries. The resolutions of the International Symposium were discussed by the sub-committee for Professional and Commercial Occupations in Bonn in October 1972. The sub-committee sent them with their recommendations to the President of WCWB and asked him to forward them to the representatives of international institutions, especially the agencies of the UN.

In connection with the Committee meeting in Tunis, the Union Nationale des Aveugles de Tunisie arranged in October 1973 a "Euro-African Seminar on Work for the Blind in Africa". It was supported by the European and the African Regional Committees and took place in the presence of representatives of Unesco, the American Foundation for Overseas Blind and the Royal Commonwealth Society for the Blind.

The Committee resolved to recommend the General Assembly of WCWB to establish only one Standing Committee on Employment, instead of the Committees for Professional and Urban Employment

and Rural Activities. The new committee should be divided into three sections. One section should deal with professional and commercial occupations, another one with the blind in industrial, craft and sheltered occupations and the last one with rural activities. The Committee feels strongly that because the problems of vocational rehabilitation of the blind are interdependent, especially in developing countries, there should be a unified approach to this matter.

The Committee resolved further to recommend the General Assembly of WCWB to encourage the regional Committees to cooperate with the Standing Committee of WCWB on Employment of the Blind.

The cooperation with other institutions of WCWB as well as with international and national organizations was good. We owe particular thanks to the office of the UN in Geneva, the ILO and the Swedish Labour Market Board for their effective promotion of the Committee's work. But I thank also the Committee members for their constant active and friendly cooperation. I hope that the continuing achievements of WCWB will be successful in the vocational rehabilitation of blind people in various fields in many parts of the world in spite of all difficulties.

REPORT OF THE COMMITTEE ON RURAL ACTIVITIES

by Capt. H. J. M. Desai, Chairman

Members

1. Capt. H. J. M. Desai (India), Chairman
2. Prof. (Mrs.) Dorina de Gouvêa Nowill (Brazil)
3. Mr. John F. Wilson, RCSB (United Kingdom)
4. Mr. Mallam Kurama (Nigeria)
5. Mr. Evgeni Ageev (USSR)

I. Committee Meeting

The Committee, with the exception of Mr. Mallam Kurama of Nigeria, met briefly during the meeting of the Executive Committee of the World Council for the Welfare of the Blind held at Moscow in May 1972.

II. Training Course

The Committee on Rural Activities finalized the syllabus of the Training Course for Project Managers, Administrators and Resettlement Officers of Agricultural and Rural Training Centres and Rural Resettlement Programmes for the Blind. The Committee also corresponded with some international agencies with a view to organizing and financing a training course based on the syllabus drawn up. These efforts were not successful. However, since the syllabus has been drawn up, the course could be started immediately financial help is forthcoming.

III. New Approach in Training and Resettling the Rural Blind

For the first time, a new approach of training the rural blind on site, in their own villages, with the help of mobile travelling units, manned by professionally qualified staff and equipment, is being tried out at Madurai in India. The project is developed in co-operation with the American Foundation for Overseas Blind. If the experiment succeeds, the training of the rural blind in agricultural and allied subjects could be revolutionized and, what is more important, could be done much more economically. The psychological benefit to the rural blind in not being dislocated from their families and familiar rural surroundings would be immense. The Rural Activities Committee will watch the success of this experiment with eagerness and expectation.

IV. Integrated Approach in the Training of Rural Blind

An integrated approach in the training of the rural blind in the existing rural set up of the Ramakrishna Mission, Calcutta, is proposed to be experimented upon with the help of the RCSB.

The RCSB will finance the maintenance cost of some 50 trainees. The existing campus, the agricultural and other training facilities available at site would be made the fullest use of.

V. Unified Committee

The proposal of the Committee on Professional and Urban Employment to establish only one Standing Committee on Employment instead of two separate committees for (i) Professional and Urban Employment and for (ii) Rural Activities as at present, is welcome, since for paucity of funds, the work of both committees suffers at present. Besides, the problems of vocational rehabilitation are interdependent and a unified approach would be to the benefit of all concerned.

UTILIZING INDUSTRIAL RESOURCES FOR THE EMPLOYMENT OF THE BLIND

by B. V. Zimin, President,

Central Board of the All Russia Society for the Blind

Employment is the most important part of the welfare and social rehabilitation of the blind.

Work for a blind person is not only a means of subsistence but also a source of moral satisfaction and a vital necessity. For blind people, devoid of the possibility to perceive life visually, work is happiness; it helps them to live a full life, to apply their abilities, knowledge and qualifications to productive work.

This is the way we estimate the significance of labour in our country. That is why we give special consideration to questions of employment of the blind.

In the Soviet Union there is no longer any problem of employment of the blind. Conditions are such that any blind person in the country who wishes to work can be employed immediately.

Nowadays, besides blind people who are engaged in intellectual and agricultural pursuits, there are 57 thousand working at the All Russia Society for the blind enterprises and 13 thousand working at the State plants and factories.

As many of you may know, training-production enterprises of the Society have proved to be the most justified form of the employment of the blind because of the favourable sanitary conditions of production for the workers. In addition, there are regular medical controls and technical means to help blind workers. That is why training-production enterprises are the main basis for the vocational training of the blind and they provide us with ample opportunity for their industrial employment.

Blind people work at the State plants and factories as well. Industrial employment only becomes possible with an industrial vocational training of the blind corresponding to the modern industrial level.

In the Soviet Union blind people receive polytechnical training during their study in a secondary school.

The newly blind study in rehabilitation centres. The main task of these centres is to help a blind person to overcome the depression caused by the loss of sight, to train him in orientation, homecraft, catering for his own needs, reading and writing Braille, ordinary typewriting and also to help him to acquire working habits.

Blind people receive vocational training at special training-production enterprises.

Vocational-technical training at the enterprises includes:

- (a) training of unskilled workers for certain occupations;
- (b) retraining of workers for other occupations in the event of their moving to other jobs;

(c) improvement of an industrial worker's qualifications.

For workers undergoing training, the State Medical-Labour Expert commissions' certificate, given to a blind person and containing information on his health, sight defect, age, general education and his preference for a certain occupation, must be taken into account. Industrial training is carried out by instructors according to specially developed programmes. The duration of training depends on the profession chosen and on the blind person's abilities.

The training of new workers consists of three periods: The first period is a preparatory one. This is the time when pupils familiarize themselves with an enterprise, its workshops, work place, tools, training programme, staff rules, safety measures, etc. During the second period the trainee masters basic methods of work and techniques. At this time the worker should learn the most rational methods of work. The third period is devoted to independent work, when the pupil improves and perfects his qualifications.

The constant improvement of production necessitates further training of the worker. That is why enterprises organize industrial technical courses and schools for studying progressive methods of work. A course of training lasts ten months and workers continue working at that time. Qualified workers, trained in such a way, produce complex industrial articles quite successfully.

The enterprises of the Society and of the State industry employ blind people in almost 300 occupations.

They work as metal press operators, loom threaders, drilling machine operators, turners, milling-machine operators, metal work assemblers at various mechanical assembling and electro-mounting work. There are also workers in other trades employed at furniture, plastic, jersey, paper-cardboard and brush factories.

Nowadays, the Society's enterprises are large and highly mechanized industrial units. Each of them employ 300-1,000 people, and 50% of the total quantity are sighted qualified workers, engineers and employees. During the current year, the enterprises will turn out about 2,000 different articles amounting to a total sum of over 510 million Roubles. These are: starting regulation apparatus (SPA) for discharge lamps, different types of lamps, guards, knife-switches, starting knobs, fuse sets, a wide range of automatic electrical equipment—lanterns, side lamps, switches, turn indicators, spare parts for tractors and motor-cars, step-down transformers, electro-motors, different types of oil and fuel filters for automobile and tractor engines; relays, automatic switchboard equipment, certain parts for radio and television sets, etc.

The production of such complex articles is not possible without the participation of a large group of sighted technicians and engineers, foremen and qualified workers, constant professional improvement and a highly developed technique.

What should be done to bring about the maximum employment of the blind in industry? What are the necessary conditions? Who should devise methods of work for the blind in industry and special devices for them?

One of the main tasks in the organization of production is the right

choice of articles to produce. Engineers and economists deal with the questions of economy, analysis of cost and the study of the technology of equipment used. They determine the possibility of producing different articles in the conditions obtaining in the enterprises of the Society.

Maximum employment of the blind should be sought. To this end, a study on the technological aspects of production is made. As a rule, methods are worked out which divide production into small production line operations. Each operation should be effected easily making use of special instruments. The task of engineers is to make these special devices, starting from the elementary up to the semi-automatic, to enable a blind worker to accomplish any technological operation. I would like therefore to point out the high level of the special industrial technique (Typhlotechnique) at the plants of the Society. The production of many technologically complex articles has only become possible thanks to the elaboration and use of special instruments and devices for the blind.

While organizing production of articles, we always study economic questions, as for all the articles produced by the Society we have a special price-list and we should therefore think of the profitability of production. Thus, profitability serves as a criteria in the good organization of the work. The income of the Society is a result of its production activity and enables the association to cover all its expenditures itself.

The enterprises of the Society may be divided into two types, according to the principle of the organization of production and articles produced:

1. Enterprises with a complete cycle of production, i.e. enterprises producing articles from start to finish. In this case the enterprises get their raw materials and also a warrant for sale according to a plan. Normally, the kind of article produced is determined by the State planning organs. The volume of production, according to the National Economy Plan, is over 50 % of the general volume of production of the Society's enterprises.
2. Enterprises working in cooperation with State factories. In this case, the Society's enterprises receive raw materials, complete parts from a plant or factory and then make them up into separate units or a complete article, which are delivered to the plant responsible for sub-contracting.

Production costs and mutual obligations are determined by contract.

Articles produced in cooperation with the State industrial enterprises are different. Among these are: cables, TV and radio-sets, telephone switchboards, dash-boards for tractors, signalling apparatus, cables for motorcycles, resistance boards, etc.

It is quite clear that enterprises should be equipped with modern instruments and machinery. These are different types of forge-press equipment, lathes, milling, drilling, grinding lathes, coordinating-cutting and other types of machine tools. Many enterprises have departments for making plastic galvanic covering, painting articles, welding, soldering, and other work, according to the technological process. Sighted workers are usually employed in these departments.

As has already been stated, enterprises of the Society are paying concerns. However, the question of increasing output and improving production is a paramount question, and the Society studies it systematically.

I believe there is no need to prove that a large, mechanized and specialized enterprise is considerably more economically effective than a small unspecialized one. That is why we concentrate our enterprises and develop them into industrial complexes.

Besides industrial complexes we build apartment houses with comfortable flats, kindergartens and cultural centres. Our production is concentrated as far as possible in one field. This enables us to concentrate on the maximum mechanization of production and to study scientific organization of labour and the improvement of production more thoroughly; and also make the best use of the work of engineers. For that reason, consideration is given to organization of the work and the work place of a blind worker. In fact, the main purpose of such organization is to make the work easier, to do everything to make a blind person happy and not be unduly tired.

Many of the present participants have visited enterprises of the Society and have seen sighted people working together with the blind. Among them there are many sighted engineers, technicians and employees. Cooperation in work, participation in social life and amateur groups make up the community of the sighted and the blind.

You will thus observe that the Society's enterprises are highly industrialized plants in view of their characteristics and organization of production. They contribute to the full integration of the blind in society.

On the recommendation of WCWB Committee on Professional and Urban Employment of the Blind, the World Council Executive Committee meeting, held in May, 1972 in Moscow, recommended the use of training-production enterprises of the Soviet Union Societies for the Blind as a model for those countries who wish to create or improve their organizations for the employment of the blind.

It is quite clear that rational employment of the blind is only possible in such enterprises and I think it can hardly be solved in a plant or a factory having only two or three blind workers.

In plants with hundreds or thousands of workers, where only two or three blind workers are employed, it is simply not possible for the management to take the necessary care of these blind workers. That is why in our country blind workers are employed at the State plants by whole groups and special departments are arranged for them. In such cases, blind workers have the same conditions as at the Society's enterprises. Experts from the Society, together with engineers of the State plants determine in which posts and workshops blind workers can be used to the maximum. Then, in the same way as is done at training-production enterprises, the technological process is worked out: operations are subdivided into small ones, special devices and instruments are prepared, workers are specially trained. Usually the director of a department is responsible for the organization of the whole work.

Over the last years, setting up of such departments at the State plants

and factories has become very popular. A Decree of the Soviet Government contributed greatly to this.

According to the Decree, directors of plants and factories were obliged to create departments for the employment of the handicapped. Setting up such departments justified itself and contributed to the employment of the blind in the State industry. In the main, such departments are set up in electronic and radio-technical industrial enterprises and also in the light industry and food sector.

Moreover, there are State enterprises where employment of the blind prevails. As a rule these enterprises were founded many years ago and they produce mainly brushes, knitted garments, furniture and cardboard articles.

As has already been pointed out, there are 13 thousand blind workers employed in the enterprises of the State industry of the Russian Federation. The experience of the Soviet Union shows that there are big opportunities for the employment of the blind in industry. One of the main conditions for the successful employment of the blind is the development of the production process and also the training of qualified blind workers.

An international investigation and study of the employment of the blind made by the Swedish Labour Market Board in cooperation with the International Labour Organization (ILO) and the World Council for the Welfare of the Blind (WCWB) has shown that many countries employ blind people in industry.

The survey is particularly interesting from the point of view of occupations accessible to the blind. Those countries who answered questions of the investigation named about 170 occupations according to ILO Classification, and many of them are industrial ones. We have every reason to suppose that, in fact, there are many more industrial occupations where blind people are employed.

Industrial enterprises in Bulgaria, Poland, the German Democratic Republic and other socialist countries, widely employ blind people and it should not be forgotten that in England, Denmark, Italy, Sweden and some other countries, blind people are employed in industry, at the rate of one, two or three people per enterprise.

In spite of the fact that in such cases it is almost impossible to create special conditions for the blind, which help them in orientation and work, there are some cases in our country of the same type of employment of the blind. In most cases, this type of employment (one, two or three blind people at an enterprise) can be explained by the proximity of the residence of the blind to the enterprise.

We should not ignore or underestimate this form of employment of the blind.

All this should convince us of the unlimited possibilities of industrial employment of the blind.

While evoking successful employment of the blind in the Soviet Union, we should point out the constant attention given to this problem by the Government of the Soviet Union. The Government has issued decrees regulating questions of welfare and employment of the handicapped. Blind people working at the enterprises of the Society and at

State industry have a 36-hour working week, a month's paid holiday a year and, in addition, they are given pensions on favourable terms. Blind workers are exempt from taxes, they receive full pensions in addition to their salary and they may use any kind of city transport free of charge, etc.

The Social Security system in the country is based on the humanitarian and democratic principles of socialism; it has become the most important State function, a part of the Soviet social system. It enables us to give the maximum consideration to the various interests and needs of the visually handicapped.

SHELTERED WORKSHOPS AS PART OF MODERN ECONOMY

by T. J. Parker, General Secretary/Treasurer,
National League of the Blind and Disabled of Great Britain

Historic background. For more than one hundred years workshops for the blind have been operating in Great Britain. They all commenced through the activities of Voluntary Societies for the Blind and provided employment in traditional trades such as brushmaking, basketmaking, matmaking, and the production of cork ship fendoffs.

Since the passing of the Blind Persons Act of 1920, there has been an increasing involvement of the Local Authorities in these activities. Some workshops were taken over by the Local Authorities and the remaining workshops are operated by Voluntary Societies for the Blind, acting as agents for the Local Authorities.

Change of Trades. Considerable changes are taking place in the role of workshops for the blind. There has been a significant change in the type of work undertaken by the workshops, particularly since the war. The following is a list of some of the occupations currently being carried out in these workshops:

Carpentry including Ottomans, dressing stools, chairs, bedside tables, linen boxes, nursery furniture, school and office furniture, geriatric chairs.

Bedding trade, divans, beds, mattresses and continental quilts.

Brushes, including domestic and Local Authority brushes.

Engineering. This is largely sub-contract work including capstan and lathe operating, drilling and assembly.

Packaging, including bubble, shrink and vacuum forming.

Plastics, including injection moulding and high frequency welding.

Toiletry, including soap making, bubble baths, shampoos and cosmetics.

Cardboard boxes.

Wirework, including litter baskets, hanging baskets, fire guards, machine guards, clothes hangers and any other wirework required by customers both welded and woven.

One of the most exciting developments in recent years has been the introduction of tubular steel furniture production into the workshops. Where this has been adopted, the workshop has become a successful competitor with industry, in securing Local Education Authority contracts for equipping schools. Others have been successful in producing welfare suites, for residential homes operated by the Local Authority and Voluntary Societies.

There are almost sixty workshops for the blind in Great Britain employing approximately three thousand workers, nearly one quarter of whom are seeing severely disabled persons and the remainder being registered blind persons. The introduction of the seeing severely dis-

abled into workshops for the blind in recent years has helped in some instances to widen the range of opportunities for the blind workers for whom the workshops were originally designed.

Some of these workshops are operating in old buildings, in some instances dating back to the last century; others are housed in purpose-built factories established since the war.

Financing. Only one workshop for the blind makes a financial profit. All the rest are heavily subsidized by the Local Authorities from whose areas the workers are drawn. The Local Authorities in turn receive an annual grant from the Central Government.

Wages. Since 1951 all the workers in these establishments have had their wages and other conditions of employment linked to the manual workers employed by the Local Authorities. This has led to a great sense of security on the part of such workers.

There is in existence in Great Britain a National Joint Council for Workshops for the Blind. On the one side there are representatives of the Local Authorities and the Managements of the workshops through their own national associations. On the other side there is the National League of the Blind and Disabled, which is the trade union representing all the workers. This National Joint Council regulates the wages, etc. in all the workshops for the blind through its disputes machinery, deals with any disputes which cannot be resolved at the workshop level. Whilst, therefore, through the operation of the National Joint Council for Workshops for the Blind reasonable conditions exist for the workers and good industrial relations also prevail, there are nevertheless serious shortcomings with which I would now like to deal.

Shortcomings. Recent years have clearly demonstrated that blind workers possess considerable skills if correctly utilized. They have revealed a capacity for entering into modern production techniques and an ability to use often sophisticated equipment. There is no doubt that there is still scope for further exploitation of these skills. A serious problem exists in marketing the products of the workshops. Whilst the Local Authorities are extremely generous in their financial support for the provision of employment facilities for the blind, they do not make full use of the productive capacity which they have helped to create. Workshops for the blind still have to compete with ordinary industry for the major portion of their work. There is no doubt that if there was a planned approach to this problem in the sense that the Local Authorities and the Central Government were to allocate specific contracts which would provide the workshops with all the work they needed, drastic reductions could be effected in the cost of providing such employment. The Managements and the workers have shown that they are capable of producing many articles of a wide variety, regularly purchased by Central Government and the Local Authorities. If there was a guaranteed flow of regular contracts at satisfactory prices, productivity in most of the workshops could undoubtedly improve.

Workshops in Great Britain vary considerably in size; some workshops with less than twenty employees and the biggest of the workshops employing some two hundred and fifty. Generally speaking, in the years since the war there has been a steady decline in the number both

of workshops and of blind workers employed in workshops for the blind. This is largely due to the fact that there has been a tremendous increase in the number of blind workers going into open industry.

Among these numbers blind women have also played their part. In the early days they were largely engaged on knitting, many others on round and flat machine work. This trade is largely disappearing and the women have been transferred to other types of work, largely associated with packaging departments. Like the men, they have also shown a capacity for using sophisticated equipment in the packaging work. One workshop was very successful a year ago in that an article for which they had designed and made the packaging, won the international Gold Star Award at an exhibition organized by the International Packaging Organization. At the present time many of the women workers are working alongside the men on the same kind of work, whilst others are engaged on parts of jobs which are broken down as they would be in modern industry. In the last three years, the wages for the blind women workers have been advanced in a phased approach towards equal pay. These women workers now receive 96½% of the male rate of wages.

Many of the workshops for the blind in Britain are now adopting method time and motion production techniques calculated to raise the level of production, thus reducing the unit cost. Some blind people in these establishments have undergone training and become MTM2 applicators.

Many of the blind workshops have also provided opportunities for the more skilled blind workers to become departmental foremen, foremistresses and supervisors. This has been a tremendous encouragement to the blind workers and has often acted as an incentive for individuals to become more proficient. This has often proved to be an advantage in that, in addition to being able to plan production, they also understand the problems of blind persons and are thus able to give good instruction.

In summing up, I would say that there is still a role for the workshops for the blind in the modern economy. They have shown that they are capable of producing worthwhile and high quality articles. They provide wages which are comparable with those paid to the manual workers employed by the Local Authorities. They have a provision for the workers who are sick which allows them twenty-six weeks full pay in any twelve months, and if the sickness continues, a further twenty-six weeks at half pay plus the State Insurance benefits, up to their normal weekly wage. They are also entitled to nine public holidays each year and three weeks annual leave with full pay. After twelve months service, they receive three weeks and one day, after five years service, three weeks and two days, and after ten years service, three weeks and three days paid annual leave. The workers are classified as full industrial workers paying normal State Insurance contributions and entitled to receive all the benefits available under legislation to all ordinary workers. With this security, these workshops are not merely establishments from which the blind workers derive a livelihood, they have also become a way of life. From the blind person's standpoint, therefore, they are desirable and from the standpoint of the community at large, they could, with the right degree of planning, play a useful role in the modern economy.

WIDENING AND DIVERSIFYING JOB OPPORTUNITIES FOR THE VISUALLY HANDICAPPED*

by Mr. Bengt Lindqvist, Sweden

There seems to be general agreement among organizations of and for the visually handicapped that having a sound and normally paid job represents the highest level of rehabilitation to physically fit visually handicapped persons of working age. Even if social security systems are gradually improved no pensions or similar arrangements can give the same standard of living, self-respect and social acceptance as having a job. It is therefore with great pleasure I can say that the last five-year period of national and international development in the field of vocational rehabilitation has been unusually active and interesting. New fields of employment have been conquered and new methods have been tried to help visually handicapped persons to enter the labour market. In the international field some interesting actions have been taken which may prove to be of the utmost importance for future work in the field.

Together with the ILO and the Swedish Labour Market Board the WCWB Committee on Professional and Urban Employment has made an extensive survey on the employment conditions of the visually handicapped in industrialized countries. The UN Rehabilitation Unit has carried out an investigation on "the situation of rehabilitation services of the blind focusing on developing countries". In 1972 two conferences were organized in Berlin and Moscow on training and employment of the visually handicapped in the professions and in computer programming. Last year the European Regional Committee of WCWB organized a seminar in Brussels to make a further analysis of the employment conditions of the visually handicapped in Europe. In Tunis an Afro-European seminar was held primarily to exchange experience in the field of employment and to discuss further action.

All these activities have contributed to our knowledge and documentation of the situation in the field of vocational rehabilitation. Hopefully, we now have a much better basis for effective action both on a national and an international level. The title of this paper implies a question: "How can job opportunities for the visually handicapped be widened and differentiated?" This is the main topic of my paper. But before turning to this central question and to provide the adequate background for it I should like to start by commenting on two other questions: "What is the present situation in the field?" and "How can the situation be interpreted?"

* The term "visually handicapped" in this paper refers to both blind and the partially sighted.

WHAT IS THE PRESENT SITUATION IN THE FIELD?

Industrialized countries

The WCWB survey (1)* was made in 1971. Thirty-six countries were selected for participation. Twenty-nine of these answered but only 21 of them gave statistical information. The report on this investigation has been sent to all delegations of WCWB and I will therefore only summarize a few important findings relevant to my paper.

1. The statistical material has considerable reliability deficiencies due both to lack of statistical data and difficulties in using the ISCO-code.†
2. 167 occupations were found in the 21 statistical reports.
3. Most countries had a remarkably small number of this total. Fourteen of the 21 countries reported less than 35 occupations.
4. Very large proportions of the working population of the visually handicapped were found in few occupations. "The median per cent visually handicapped employed as basket- and brushmakers for example, is 31. That means that in half of the countries, more than 31% of the total number of visually handicapped on the labour market are employed as basket- and brushmakers."(2)
5. When the material is divided into ten occupation categories according to ISCO "the average number of occupational categories with less than 1% of all the employed visually handicapped persons is 5.3 of the ten categories."(2)
6. The employment situation of the visually handicapped shows more resemblance to other national employment markets for the visually handicapped than to the general labour market in the same countries.
7. An analysis of the trends of development in the employment situation built on the data on employees and trainees in the various occupations shows that "the total structure of the labour market for the visually handicapped is not changing very much."(2)

Developing countries

The UN Rehabilitation Unit in 1973 carried out a survey on "the situation of rehabilitation services for the blind focusing on the developing countries".(3) Forty-five developing countries were selected and asked to participate. Twenty-one answered the questionnaire. A full report is expected in the near future.

1. The answers often gave rather limited information. Many developing countries only have services at social assistance level.
2. Many of the countries involved lack even basic education for blind children. Some of them have no legal obligation for the education of the blind. In other countries such obligations exist but form no guarantee for education due to lack of resources.

* All numbers in this paper refer to the list of references at the end.

† International Standard Classification of Occupations.

3. Prevocational preparation and vocational guidance does not occur in some countries and others have just created their first facilities in this field.
4. Resources for vocational training, placement and employment are very limited in some countries and non-existent in others.
5. Simple carpentry, weaving and basketmaking are common occupations where employment occurs. Switchboard operation, vending-stand-operating and teachers for the blind are examples of more advanced occupations.
6. Farming and trade training centres have been successfully started in some countries.
7. Sheltered workshops occur in some countries but are usually of recent date.
8. Among the most common difficulties reported the following may be mentioned: Inadequate financial means, lack of qualified personnel, lack of suitable equipment, general national unemployment and other priorities.

HOW CAN THE SITUATION BE INTERPRETED?

The two explorative studies on the occupational situation of the visually handicapped have been of very little help with regard to the understanding of the situation.

We know that traditions and rigid role expectations have held a strong position throughout the years both among the general public and in the field of work for the blind. This is surely part of the explanation why half of the countries in the WCWB survey report have one third of the visually handicapped workers in traditional crafts. However, we must also remember that both the principles and instruments of vocational guidance are of a relatively modern date. The primary task was for a long time to find any kind of employment by which blind people could support themselves.

During the last decade or two when new methods and resources have been developed the number of occupations has been increased substantially. In such "new" occupations the number of workers is still often very small. Judging from the documentation of the survey many new occupations seem to have been found not so much through systematic search and planning but rather as the result of initiatives and pioneer work both by individuals, organizations and agencies. In my opinion, this is the only way to unite the two facts that we have at the same time a rather large number of occupations in the 21 countries and that the vast majority of the countries report less than 25% of these occupations. Of course, there are other contributing factors to this situation—different organization and resources for training and placement services, different social security policies and different philosophies in the rehabilitation of different groups of the visually handicapped.

Concerning the situation in the developing countries, we may summarize that many countries have limited or no resources in vocational

rehabilitation for the simple fact that they are now in the middle of building up facilities for basic education. As stated in the UN survey, even basic education is non-existent. In many cases it is quite clear that governments do not give the high priority and attention to blindness as the situation demands. National unemployment and inadequate financial means often seem to be the reason for this in many developing countries. The incidence of blindness grows so rapidly that the main economic efforts have to be made on the prevention of blindness.

HOW CAN JOB OPPORTUNITIES BE WIDENED AND DIFFERENTIATED?

Both recent surveys and conferences on vocational rehabilitation for the visually handicapped have emphasized the need for systematic planning and development work on a national and international basis. To stimulate such a development is surely in the interest of organizations both for and of the blind, but in my opinion the community must take the main responsibility for the further development. This principle has also been expressed by the WCWB Committee on Professional and Urban Employment. In one of its reports the committee states that "according to the Declaration of Human Rights adopted by the United Nations in 1948 the blind also have the right to work. In the opinion of the committee, society is under an obligation to help the blind to exercise this right. A free choice of profession has to be guaranteed as a matter of principle."⁽⁴⁾ This gives the community two important responsibilities—to see to it that visually handicapped persons as far as possible get suitable employment and at the same time to evaluate the situation of the visually handicapped on the labour market and to try to develop new opportunities. Consequently a programme covering both these aspects should be integrated in the national employment plan.

A full and dynamic programme aiming at improving job opportunities for the visually handicapped must naturally include activities of many kinds. Services to individuals, publicity, research and resources for international cooperation are in my opinion the most important fields of action in this respect. In all our planning it is of the utmost importance that we constantly consider, analyze and utilize the situation and development on the general labour market.

The conferences in Berlin, Brussels and Tunis discussed detailed measures concerning services and functions in the field of employment and the result of this can be studied in the reports of these meetings. I will therefore only comment here on some aspects of special interest for my topic.

Services to individuals

In the long run the best possible way to widen job opportunities is to create a situation where the visually handicapped person can choose an occupation with regard to his capacity and interest. The UN report expressed this principle in the following way: "Realizing that effective education and rehabilitation is that which recognizes the aptitudes and

activities of the individuals concerned and is directed towards gainful employment in vocations intelligently selected, the need for increased vocational guidance and training services is apparent.”(3)

Creating the best possible conditions in the sense stated in the UN report demands that flexible resources be built up round the individual and not primarily connected with certain occupations or fields of occupation. Such programmes should always include activities in the following fields:

1. **Vocational orientation** should form an integrated part of any basic rehabilitation programme. It should be individually based, assess the interest and capacity of the individual, give practical work orientation in fields of interest. On this basis, vocational guidance should be given the individual including information on the general labour market, the situation of the visually handicapped on the market and information on the capacity of the individual himself.
2. **Vocational training** should be as broadly based as possible so that the individual is flexible when he enters the actual work situation. It is also important to base the vocational training on objective job specifications in the field concerned.
3. **Placement programmes** should include adequate resources for the provision of technical aids, reading assistance and similar support. So called training employment, which gives the individual the chance to take up a job for some time, can be an effective tool in placing visually handicapped persons in suitable jobs.
4. **Follow-up services** are necessary and should include reading assistance, technical aids, professional information, etc. In the long run such services are often necessary to make it possible for the visually handicapped person to keep his job and to get promotion.

EVALUATION AND RESEARCH

Parallel with services to individuals resources have to be allocated for constant evaluation of experiences and results and search for new job opportunities. In such activities it is necessary to include the analysis of the development in the general labour market.

Surveys and investigations can be made in many ways and have to cover many aspects.

1. Using the data of the WCWB survey, fields of employment could be identified which are of special interest for investigation. What makes it possible to have some jobs in another country but not in our own?
2. In cooperation with selected employers model studies could be made, for instance in a factory or an administrative department to see what jobs could be made available by developing special aids, by finding new working methods or by reorganizing some of the job tasks.

3. Job analysis techniques with the aim to redesign and adapt jobs for visually handicapped workers could be made.
4. Basic research is required, especially on the problem of information presentation using tactile and auditive displays.
5. The international surveys indicate several fields of future research in order to improve our understanding of the present situation, to analyze differently formed services, etc. In the planning of such investigations our World Council and the ILO have to play an active part.

PUBLICITY

It is a well known fact that there is still resistance among employers to employing visually handicapped persons. This is obviously to a great extent due to lack of factual information.

The best possible way to demonstrate what a visually handicapped person can do on a job is to let him show it himself. Training employment is in my opinion therefore one of the most effective tools of convincing hesitant employers.

Organizations and agencies should make systematic use of the results of evaluations and investigations. They should work out information material showing what our workers can do and how they do it.

Printed information in the field should be used in two ways. The general public (and especially employers) should be informed through mass media and more detailed material should be used as more direct information to the employers of special interest to us.

INTERNATIONAL COOPERATION

The two recent surveys have clearly demonstrated the need for international cooperation. Quite obviously there are great quantities of job experience in single countries which could and should be used by others.

This matter was discussed during the Brussels seminar and I quote from the report: "A centre for documentation and exchange of information should therefore be established . . . There should be adequate and regular feedback to the documentation centre from national agencies, institutions and organizations. The ILO should be a focal point for this documentation service covering training and employment of the blind (particularly new techniques and aids, new methods of training, new avenues of employment.)"(2)

The idea of involving the ILO was originally expressed when the WCWB survey was planned in Stockholm in 1970. After further action from the headquarters of the World Council this matter has advanced considerably. A letter from the ILO head office of December 1973 includes the following information: "The project has been accepted for implementation in the ILO 1974-75 programme. The documentation service will be carried out by the ILO Vocational Rehabilitation Section . . . it has been decided to establish a link to the ISIS (Integrated

Scientific Information Service) of the ILO central library and documentation branch . . . The ILO is now studying the specialized thesaurii and description lists of the IRIS . . . the ILO/WCWB Blindoc should cooperate as fully as possible with other documentation centres in the application of descriptors for joint retrieval possibilities." The bibliographies and reports from Blindoc will be in English and if possible translated into other languages, mainly French and Spanish. Organizations and agencies should send articles, programme descriptions, project reports, research findings, draft legislation, pamphlets and publicity materials, statistics and personal accounts to the documentation centre. "We feel that the documentation and information service can become an important tool in the promotion of rehabilitation and reintegration of blind persons everywhere. The ILO is pleased to play its full role in the establishment of this new international service." The Blindoc project started on the first of January 1974.

However, we must all realize that the success of this new opportunity is now completely dependent on our actions. A system has to be worked out for the cooperation between the Blindoc centre and our national experts. Quite obviously this new development also demands systematic and coordinated action from our World Council. With regard to this it might be argued that the two present committees on employment should be reorganized into one committee on vocational rehabilitation, which could naturally then have sub-committees. Such a committee would have the coordinating function needed to utilize the Blindoc service maximally.

CONCLUSIONS

The last five-year period of national and international development in the field of vocational rehabilitation has contributed considerably to our knowledge and understanding of the situation. Consequently we have now a much better basis for our future actions. The following measures are of special interest with regard to finding new job opportunities:

1. For both humanitarian and economic reasons our national communities must take direct responsibility for the employment situation of the visually handicapped.
2. A systematic programme for the training and employment of the visually handicapped should be integrated in the national plans of employment.
3. The employment programme for the visually handicapped should include services to the individual in pre-vocational preparation, placement and follow-up.
4. Such a programme should also include a system for constant evaluation and search for new job opportunities.
5. National programmes in our field should also include resources for international cooperation through our World Council.

6. The reorganization of the WCWB Committees on Employment into one committee on vocational rehabilitation should be considered in order to meet the demands of the new situation created by recent international developments.
7. Every effort must be made to make ILO Blindoc Information and Documentation Service the useful tool for future exchange of experiences and ideas that it could be.
8. As a consequence of the responsibility of national committees for the employment of the visually handicapped, the ILO in the international field should accept the same responsibilities. This could be done by appointing special experts on vocational rehabilitation for the visually handicapped at the ILO regional offices throughout the world.

DISCUSSION

The lively debate revealed, primarily, a very intense desire in favour of freedom of choice in the employment field for blind people. Work opportunities for the visually handicapped in socialist countries, in the third world—where rural training seems to offer a solution—and in western countries were compared.

It was pointed out that rehabilitation, training and employment are inseparable. Follow up services are indispensable after placement.

The meeting agreed that a resolution urging full support to the BLINDOC service be prepared for submission to the approval of the General Assembly.

References

- (1) The World Council for the Welfare of the Blind (WCWB): Training and employment opportunities for the visually handicapped. A survey, 1971.
- (2) European Regional Committee of the World Council for the Welfare of the Blind: Report on European seminar concerning the training and employment situation of the blind, 1973.
- (3) United Nations Monograph on the Situation of Rehabilitation Services for the Blind Focusing on Developing Countries, 1973.
- (4) Committee for Professional and Urban Employment of the World Council for the Welfare of the Blind: Report, 1970.

PROFESSIONAL SESSION 6

Monday afternoon: August 12, 1974

THE NEED FOR SPECIAL RESOURCES

Chairman: Mr. Ross C. Purse, Canada

REPORT OF COMMITTEE ON SERVICES TO THE DEAF-BLIND

by Peter J. Salmon, LLD., Chairman,

Edward J. Waterhouse, Litt.D., Co-Chairman

Twenty Years Later

We were surprised when we checked back that the Committee on Services to the Deaf-Blind of the WCWB was 20 years old. We were not sure when the Committee was authorized whether it was to be a permanent World Council Committee. At this time we would strongly recommend the continuance of the Committee on Services to the Deaf-Blind. Although we chide ourselves for not having accomplished more, we are grateful that either through the work of the Committee, or in spite of it, these 20 years represent some of the greatest strides that have taken place in the history of work for the deaf-blind, including children and adults. Also the original mandate to the Committee by the WCWB was related to deaf-blind adults. The large influx of deaf-blind children occasioned by the epidemic of retrolental fibroplasia in the early 1940's and the rubella epidemic of 1964-65 (German measles) has focused on the need for a continuity of services to deaf-blind children and adults. Children grow up and the training and education they receive should not be the end of the road in services, but actually the beginning of a useful, productive, and happy life for these grownup deaf-blind children. This can only be accomplished by a continuum of services that should begin during the later years of the training or educational process with a program of rehabilitation service designed to meet the needs of deaf-blind youths and adults. We regret that the International Council of Educators of Blind Youths (ICEBY), now known as the International Council of the Education of the Visually Handicapped (ICEVH), (educators of deaf-blind children) did not feel that they wished to merge with the Committee on Services to the Deaf-Blind of the WCWB. On the other hand our Committee is most pleased that we have met on a number of occasions with the educators of deaf-blind children and that we have had the value of their help as "experts" or consultants

serving with our World Council Committee on Services to the Deaf-Blind. We would urge that the Council through its Executive Committee give careful consideration and guidance to the new Committee on Services to the Deaf-Blind of the WCWB, indicating the desirability of close working relationship with the educators of deaf-blind children. We recommend to the World Council, through its Executive Committee, that a world conference be held within the next five years concerning the problems of deaf-blind children and adults. The apparent value of such a conference would be to focus attention throughout the world on the needs of deaf-blind persons, their potential for achievement, and their right to have the best possible services provided for them. Enough progress has been made to dispel any feeling that because of the handicap of deafness and blindness, such persons should be eliminated from consideration as not being capable of being trained, educated, or rehabilitated. Recognition should be given to the fact that costly as the programs of services to deaf-blind persons are, the monetary results eventually will pay off, but far and beyond this, the bringing of such persons into the ongoing stream of humanity should be the overriding consideration. We realize that the conference we are recommending will need a great deal of time, thought, and action. In addition, substantial funding will have to be provided. Until a design for the conference has been developed, including suggestions and ways and means of obtaining the necessary funding, we recognize that the Executive Committee of WCWB, if agreeable to the idea of a world conference on behalf of deaf-blind persons, will wish to have only such authority from the World Assembly as will permit the concept of the world conference to be approved with the understanding that the necessary details will be worked out and presented to the Executive Committee by the Committee on Services to the Deaf-Blind of the WCWB.

Helen Keller Legacy

Helen Keller, in her last Will and Testament, provided a gift of approximately \$26,000 to the World Council which represented a substantial amount of her estate. By so doing, she was indicating her desire that work for the deaf-blind should not cease with her passing, but that it should continue to build on the foundations which have already been laid until one day the world will point with pride to the results of her great human concern for deaf-blind persons and their need to be a part of the daily life in each of their communities.

The Treasurer of the WCWB will be reporting on grants that have been made from the Helen Keller Fund. The Committee on Services to the Deaf-Blind understands that such requests will be channelled to this Committee in the first instance and with the approval of the Committee. The President and Treasurer of WCWB will authorize the withdrawal of funds from the bank. We are attaching to this report a resolution relative to the procedure for recommendations for granting of funds from the Helen Keller Bequest.

In her legacy, Helen Keller also remembered The Industrial Home for the Blind in Brooklyn, New York, citing the deep concern this agency

has had over the years in pioneering in services for deaf-blind persons, and her belief that this work will go forward. The Administrative Vice-President of IHB worked very closely with Helen Keller over the years, and when she made special reference to him, he was deeply humbled.

Deafness

Over the span of years of the life of our Committee, there has been a significant movement in the field of work for the deaf. Cooperation by those concerned with the deaf and those concerned with the deaf-blind has been increased. This is one of the most satisfying developments that has occurred. In the past there has been very little rapport with these two groups, so we welcome the very fine relationship that is being carried out today. We find many areas of mutual concern and opportunities to work together toward the overall goal of providing a better life for the deaf and the deaf-blind. Communication, of course, is the overriding problem for both groups and some of the devices shown later in this report have application to the deaf as well as the deaf-blind. We look forward to continued cooperation between these two groups.

Multi-Handicapped

There is also a movement that has been developed over the past twenty years relative to services to multi-handicapped children and adults. In the United States a number of programs, including those that traditionally serve only deaf-blind children, are now offering services to multi-handicapped children in which the deaf-blind are included. It is our hope that this broadening of opportunities for multi-handicapped children will not lessen the necessary services to deaf-blind children. As we know, the deaf-blind child is most severely handicapped and in need of specialized, individual, and costly services in order to meet their needs. The National Center for Deaf-Blind Youths and Adults (operated by IHB) and referred to later in this report, has taken a strong position in favor of priority of service for the most severely handicapped deaf-blind persons, in view of the desperate need that has existed over the years, of meaningful services on their behalf. Deaf-blind persons with other handicaps are included in this concern. In reviewing the past twenty years, our Committee is impressed with the breakthrough that has occurred in the area of training of deaf-blind *adults*. Within the past ten years, one of the most prominent persons in the field of work for the blind, and well known throughout the world, once stated that deaf-blind persons were "vegetables" and not capable of being employed. We did not believe it then because our experience proved otherwise, and today we have evidence of deaf-blind persons being employed in unskilled, semi-skilled, and skilled labor, as well as in professions. Admittedly, the number is small, but the evidence is great, and from now on it can be expected that the many services that are springing up over the world will broaden the areas of employment, as well as the numbers gainfully employed.

Membership of Committee

At this point may we pay tribute to three deaf-blind persons who served on the first Committee appointed by the WCWB Committee on Services to the Deaf-Blind. All three are doing very well and have advanced markedly over the years.

Dr. Gerritt van der Mey of The Netherlands, an eminent mathematician, has continued his work in the area of sophisticated computer programing in which he pioneered as a deaf-blind person for many years.

Mr. Arthur R. Sculthorpe of Peterborough, England, who has arrived at retirement age, but refuses to retire, is carrying on with the National Deaf-Blind Helpers' League in Peterborough, as its Director. He has recently expanded the unique area in Peterborough where the National Deaf-Blind Helpers' League has erected several buildings known as "Rainbow Court". Deaf-blind persons capable of living alone with some outside help thoroughly enjoy these small, clean, and comfortable flats.

Dr. Richard Kinney has advanced in his profession and is now Executive Director of The Hadley School for the Blind. Dr. Kinney is very active and still a world traveller as a special goodwill ambassador on behalf of deaf-blind persons. He addressed the Fifth Panamerican Congress of the Blind in Miami, Florida, October 22, 1973, asking the delegates of seventeen countries to build a "world in which a deaf-blind person can do anything a sighted person can do except see, a world in which a deaf-blind person can do anything a blind person can do except hear".

We wish to pay tribute to all of the members of the Committee on Services to the Deaf-Blind of the WCWB, as well as the consultants who have worked with us over the years. Space does not permit us to give an account of each of these valuable persons who are dedicated to helping deaf-blind persons.

Up-Dated Report of the Committee Presented to The Executive Committee of the WCWB at Meeting in Moscow, May 1972

As one of the standing committees of the World Council for the Welfare of the Blind, the Committee on Services to the Deaf-Blind has the mandate to appoint a committee of six members, with the Chairman having the option also of coopting experts to the Committee. At the meeting of the ICEVH, which took place at Perkins School for the Blind, Watertown, Massachusetts, U.S.A., August 22-27, 1971, it was agreed that members of the ICEVH Committee would be pleased to join as individuals and to be represented primarily as "experts" or consultants. With this in mind, it is proposed for consideration of the Executive Committee of the WCWB that the Committee on Services to the Deaf-Blind of the World Council for the Welfare of the Blind consist of the following:

Committee:

Dr. Peter J. Salmon, Chairman, U.S.A.
Dr. Edward J. Waterhouse, Co-Chairman, U.S.A.
Dr. Richard Kinney, U.S.A.
Miss Marjorie Henham-Barrow, United Kingdom
Mr. Eric T. Boulter, United Kingdom
Mr. Jan van Dijk, Netherlands

The above recommendation was approved by the Executive Committee of the World Council meeting in Moscow in May 1972.

Subsequently, the Chairman exercised his privilege to coopt consultants and received acceptance from the following persons:

Consultants:

Mr. Louis J. Bettica, U.S.A.
Dr. Douglas MacFarland, U.S.A.
Mr. A. N. Magill, Canada
Mr. Wilhelm Marhauer, Germany
Mr. Theo Pauw, South Africa
Mr. Harold J. Roberts, U.S.A.
Dr. Sadako Imamura, Japan
Mr. Geoffrey Salisbury, Developing Countries
Mr. Arthur Sculthorpe, United Kingdom
Dr. Robert J. Smithdas, U.S.A.
Mr. Harry J. Spar, U.S.A.
Dr. Gerrit van der Mey, Netherlands
Mr. Keith Watkins, Australia
Dr. Boyce Williams, U.S.A.

While on the subject of the structure of the Committee, we feel constrained to call to the attention of the Assembly the difficulty experienced by the Committee on Services to the Deaf-Blind, and we presume by other committees, in carrying forward their work, most of which has to be done by correspondence, and to be very frank, a great deal of the responsibility falls to the chairman or co-chairman, or perhaps one or two others. The expense allowance of \$1,500 during the 5-year period between meetings of the World Council is woefully deficient. Most of us who are engaged in the work of these committees have full-time responsibilities and are limited by the agencies we serve with respect to expenditure of funds, particularly those related to overseas travel. We are not complaining, but simply identifying one of the chief problems which makes it impossible to carry forward a very active program of services to deaf-blind persons throughout the world.

The Committee on Services to the Deaf-Blind of the WCWB was established twenty years ago, with the prime objective of developing a universal means of communication. This was accomplished through a study that was made in 1956-58 and was identified in a complete review of services for the deaf-blind at The Industrial Home for the Blind, which was contained in a seven-volume report financed by the Office of Vocational Rehabilitation, U.S. Department of Health, Education, and Welfare. In addition, there was an eighth volume also financed by

the Office of Vocational Rehabilitation which made it possible to provide a report to the World Council, and was presented to the Assembly of the World Council in 1959. This report was widely circulated throughout the world and has been out of print for a number of years. At that time the Committee recommended the use of the block letters printed in the palm of the hand of the deaf-blind person as the one manual means of communication that was most suitable. A number of other means of communication were identified in the report, and this subject received a great deal of attention in the intervening years. In fact, *communication* is identified as the "key" to services for deaf-blind persons.

A supplement to the report of the Committee on Services to Deaf-Blind was presented to the World Council Assembly in New Delhi in October 1969. This survey was an attempt to identify services to the deaf-blind throughout the world. Of necessity, this was a limited report, but represented a first attempt to obtain some information regarding what was happening throughout the world in meeting the needs of deaf-blind persons. Also we presented the results of another survey entitled "Helen Keller's Children" to the Executive Committee of the WCWB held in Moscow in May 1972. This consisted of the reproduction of approximately 100 letters received from various parts of the world. As a basis for this survey, we asked the following simple question: "Would you be good enough to write us very briefly (not more than one page), indicating any movement or progress that has been made in services to deaf-blind children or adults in your country or your immediate area." The response percentagewise was excellent. Both of these surveys were widely circulated to delegates of the World Council and to those who cooperated with the committee in the development of these surveys. The supply of both of these surveys has been exhausted, even though we had an overrun in each case. We feel that the above-mentioned surveys should be looked on as preliminary, unscientific efforts not only to obtain information regarding services to the deaf-blind, but also to stimulate thought and effort on behalf of the deaf-blind.

Facilities

We have had a number of reports of new or improved facilities provided for deaf-blind children, youths, and adults. We have also had the privilege years back of seeing the excellent work for deaf-blind persons being conducted in many countries, such as in England and other areas of the United Kingdom, Germany, the Scandinavian countries, and several others.

German Center for the Deaf-Blind: Outstanding among these facilities may be mentioned the very substantial building program of the Deutsches Tabblindenwerk Zentrum (German Center for the Deaf-Blind) in Hannover, West Germany. The buildings, situated on beautiful grounds, and most impressive, consist of a school for deaf-blind children, and living quarters and rehabilitation facilities for deaf-blind adults. These comprise what is probably one of the most complete centers for the deaf-blind to be found anywhere.

The Royal New South Wales Institute For The Deaf and Blind in Australia: At a special ceremony in connection with the opening of Walkley House, St. Leonards, North Rocks, on January 19, 1973, Sir William Walkley, President of the Institution, made the following comments: "This Institution is now in its 113th year. It started as a very small affair. The income in the first year was £75.15.9. The ninepence is very important! It was then. Now our income is around about \$800,000. We have increased all our activities immensely over the years. We have a beautiful property at North Rocks where we have \$3 million invested. But we did not ask the State Government to find any money for it. Last year we found that our offices at Castlereagh Street, which we had bought about 3½ years ago were too small. So we decided to look for other premises and we found this building. The price was \$430,000 . . . Today we have paid off this building. We owe nothing on it at all, which is not a bad effort for a small organization."

Perkins School for the Blind—Community Residence Project: From the point of view of the educator, deaf-blind children have to be prepared for two different elements in their adulthood. First, they need vocational training; and secondly, they need preparation for daily living. Mr. Benjamin F. Smith, the Director of Perkins School for the Blind, in Watertown, Massachusetts, where the Department for Deaf-Blind Children includes eighty boys and girls of all ages from five through their teens, has taken steps in both directions.

To begin with, the entire curriculum of the school has been placed on a career-education basis in view of the large number of multi-handicapped children enrolled including the deaf-blind. Ample opportunity for career experience is given to children from the ages of nine, up, on a voluntary basis; and, by the time they reach young adulthood, they have met much opportunity of discovering what is actually involved in holding a job.

More difficult than vocational training is preparation for living. It is anticipated that, in the United States, a large number of the current wave of deaf-blind children will, as adults, be best served if they can be included in the large number of community residences which are springing up all over the United States to house various types of handicapped and retarded persons. With this in mind, Bridgman Cottage, which was named after Laura Bridgman, the first deaf-blind girl ever to be educated, has been set aside as a community residence. Here, a number of deaf-blind teenagers and a number of slow-learners are given ample opportunity to demonstrate their ability. Being provided with a budget and with a minimum of supervision, they are encouraged to work in preparing their own meals and taking care of their clothes. It is hoped that in this way it will be possible to demonstrate to the authorities in their home communities that they are, indeed, suitable candidates for enrollment in community residences. In connection with this, also, a good deal of emphasis is placed on teaching mobility. As far as is known, this is the only agency which, at the moment, is experimenting along these lines.

National Center for Deaf-Blind Youth and Adults: In 1968 an im-

portant program for deaf-blind children was inaugurated in the United States. This was precipitated by the rubella epidemic of 1964-65 which resulted in the birth of a large number of deaf-blind children. This program is funded by the Federal Government and is under the auspices of the U.S. Office of Education, Bureau for the Education of Handicapped Children. There are ten regional centers throughout the United States by which the program is carried forward. There were no funds provided for construction, but substantial monies have been available for the development of the services to deaf-blind children, many of which are conducted through the residential schools for the blind under contract with the U.S. Office of Education. Substantial progress has been made in the case-finding, diagnosis, evaluation, training, and education of the children. Special emphasis has been given to services to parents of such children. In our previous report to the Executive Committee of WCWB we reported that under this program some 3,600 deaf-blind children had been identified with 1,200 receiving active service, but now the number has increased to approximately 5,500 of which one-third are receiving service. There is an equal number of deaf-blind youths and adults tentatively identified at this time. The present appropriation to the U.S. Office of Education, Bureau of Education of the Handicapped, is \$10 million. This represents a great step forward in the last thirty years when some seven schools for the blind struggled to maintain service to deaf-blind children, without any Federal funding.

As previously reported, another important piece of legislation was enacted in the United States. Provision was made to the amendment to the Vocational Rehabilitation Act of 1967 for construction of a National Center for Deaf-Blind Youths and Adults. In 1969 The Industrial Home for the Blind was selected to operate the Center under an agreement with the U.S. Department of Health, Education, and Welfare, with Federal funding. The program of the National Center began immediately and has been conducted at temporary headquarters in New Hyde Park, Long Island. In the meantime funding for construction of the permanent National Center has been obtained through Acts of Congress. Twenty-five acres of surplus property was conveyed to The Industrial Home for the Blind on property consisting of 230 acres at Sands Point, Long Island. Aside from the 25 acres, this valuable property is being developed as a nature preserve. Construction was begun on January 7, 1974, and is expected to take approximately two years to complete. The overall cost will run to more than \$7,500,000. The Center will provide for those deaf-blind youths and adults who have the greatest need. Regional offices, four of which have been established, will work in various areas of the United States in cooperation with state and local agencies, including rehabilitation centers, to provide service for deaf-blind persons whose needs can be taken care of in the communities. The Center will be able to provide for approximately 60 deaf-blind persons at any one time, and several hundred other deaf-blind persons throughout the United States will receive service.

We regret that it is not possible at this time to identify a number of other facilities that have been provided during the past decade. We

would hope that one of the next projects of the Committee on Services to the Deaf-Blind of the WCWB would endeavour to make a survey of facilities for deaf-blind persons during the last decade.

The facilities do not always need to be large, but it depends entirely upon the country and the community served within the country. The main thrust should be to provide adequate, useful, comfortable, and safe facilities to carry forward the program for deaf-blind persons. Good work is not the prerogative alone of the large agency. As a matter of fact the smaller agency has a plus in the personal knowledge they have of individual clients that is very often denied the larger agency, especially agencies which are spread out in different areas in order to provide service. Those of us who are responsible for the operation of large agencies may be forgiven if we look with a bit of envy at the smaller agency that is able to provide the needed service for a smaller constituency.

Recapitulation

Because the Committee on Services to the Deaf-Blind is twenty years old, we feel the inclusion of the recommendations made in the first survey in October 1969 presented to the World Council Assembly at New Delhi are worthy of repetition:

- By disseminating information regarding the deaf-blind and making available written material on latest techniques in all program areas.
- Organizing teacher training courses for persons teaching deaf-blind children or working with deaf-blind adults.
- Make governments aware of need for special provisions for deaf-blind.
- Assist in a systematic survey of deaf-blind persons.
- Emphasize distinction between the double handicap and other disabilities; conduct a concentrated study of deaf-blind problems; educate public in each country.
- Stress need for developing services in countries where they do not exist and in mobilizing resources from governmental and non-governmental international agencies including UNICEF and UNESCO.
- The World Council for the Welfare of the Blind and the World Federation of the Deaf should have a Committee on the Deaf-Blind to foster research and make recommendations to United Nations specialized agencies and governments for action.
- Offer scholarships for teachers of the deaf-blind.
- The problem should be discussed in World Council Assembly meeting and guidelines suggested for tackling it successfully.
- Introduce mechanical and electrical devices for the use of the deaf-blind in countries where they are not available.
- Establish regional centers for the deaf-blind.
- Arrange small regional conferences for social workers, educators, and technicians in the field of the deaf-blind.
- Provide literature and studies, ways and means of identification, types of curricular offerings for deaf-blind children.

Low Vision, Sensory Aids and Devices Twenty Years Later

When the Committee on Services to the Deaf-Blind was formed we were at the beginning of some very interesting developments in the field of Low Vision and the use of electronic sensory aids and devices. In the area of Low Vision, The Industrial Home for the Blind pioneered in the establishment of the first Center for blind persons with usable residual vision. The approach was to have an ophthalmological examination to determine that the use of magnification would not be harmful. With this information a thorough re-examination was made by the optometrist. (Some of the clinics that were established later used the services of the ophthalmologist rather than the optometrist.) The Industrial Home for the Blind made a survey covering the period from March 1953 to December 1955 which gave the results of some 500 persons who were tested at its clinic. No one was refused, even if they were apparently without sight. A very thorough examination was effected and specific remedies for the needs of the patient were provided. Gradually these aids became more and more available. The idea of the Low Vision Clinic has spread widely throughout the United States and the world and is one of the most important services that is provided for persons with limited sight in rehabilitation centers. The United States Government adopted the concept as provided by The Industrial Home for the Blind and has helped to establish many Low Vision Clinics throughout the United States. A wide range of lenses and special devices are provided. One of the chief values of the Low Vision Center is the counselor who works with the patient. Some time after the first burst of enthusiasm, the patient may find the lenses a little awkward, and needs to be encouraged to give these specialized lenses a fair trial. Reading habits have to be changed somewhat as the use of magnification makes it possible to read only a few letters at a time. It is interesting to note that as it was projected in the survey of the first 500 patients, fully 60% or more of those persons classified as blind, and treated at the clinic, sometimes received a small amount of help, and sometimes a greater amount. It is important to understand that no new vision is provided, but the usefulness of remaining vision can be enhanced to a lesser or larger degree. Good light and color are important for those who use Low Vision Lenses. In 1974, and after some 5000 persons having received the benefit of the Low Vision Services, it is now one of the most important additions to the overall rehabilitation programs for persons with limited sight.

Speech and Hearing

In March 1965, another most important aid in the appraisal of the rehabilitation needs of blind and deaf-blind persons was the establishment of a speech and hearing service at The Industrial Home for the Blind. This was the first scientific survey that had been made in this area. The development of this program over the years has amply proven the value of a very searching audiological examination and an identification of the problems of speech of both blind and deaf-blind persons. No matter what the previous examination may have indicated,

we provided a most detailed and protracted review of each person's speech and hearing needs in connection with overall evaluation and diagnosis in the rehabilitation process. The low vision service was the forerunner of many researches and developments during the past twenty years in the field of closed circuit and other electronic devices which are rapidly coming into being at this time.

SERVICES FOR ADULT DEAF-BLIND

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A comprehensive system of medical, social and professional rehabilitation has been developed in the Soviet Union.

Public health, education, social security services and societies for the blind are responsible for the rehabilitation of the deaf-blind. The services are provided for deaf-blind persons of different age groups, i.e. pre-school children, school children and adults. The pre-school rehabilitation is aimed at forming self-service skills and human behaviour. At school age the trainees learn verbal language, they study grammar and receive a general education. Youngsters and adults are trained for certain professions and are placed in employment.

We shall try to give a brief outline of the existing services for the deaf-blind.

Primary rehabilitation is carried out within the framework of the RSFSR Ministry for Social Security Services, i.e. at special boarding schools for the deaf-blind.

Rehabilitation starts with teaching a deaf-blind child basic human behaviour. Firstly, he is taught how to fend for himself, i.e. to use a spoon and a plate while eating, to sit at table, to walk properly, to sleep in a bed, to wear clothes, to dress and undress, to brush his teeth, etc. The deaf-blind child masters thousands of daily skills and acquires social experience through the objects used in daily living. He comes to know how to handle these objects and in this way learns to appreciate human values through the shape of the objects and methods of handling them.

All this is the first humanizing influence of the community on the deaf-blind child. This is the most important stage of primary rehabilitation as the mastering of human behaviour and self service skills means at the same time the formation of elementary forms of human psychology. Alongside adequate everyday behaviour, adequate images of the environment are formed. The system of the child's organic needs turns into a system of requirements whose satisfaction is connected with definite objects of the material world and definite methods of activity. It is the system of images, the system of organic requirements and methods of activity satisfying them, that constitute initial forms of psychology. These forms of psychology come into being within the child's practical activities, within his routine behaviour.

This stage can be termed as the stage of elementary humanization.

Further on, the behaviour, based on routine activities, becomes more and more complex; verbal and semiotic forms of behaviour are added, and the mastering of the verbal language results in rapid psychological development.

At the next stage the deaf-blind child is taught human forms of communication. His behaviour is based on the development of communication requirements and on the use of special communication aids. Hearing and visual deficiency makes this stage very long. It is sub-divided into three principal periods. Each of these periods is a certain step towards the establishment of the "child-adult" communication system.

The first period is characterized by communication through objective actions performed by the adult attending the child. No special aids are used at this period. It is a joint objective action that has a communicative function.

In the second period the child masters gesture language. Now he is not only the object but also an agent of communication, i.e. he is able not only to receive information but also to express his own ideas with the help of gestures and in this way he can influence his own environment and himself. And at last, in the third period the deaf-blind child learns verbal language; his language behaviour becomes an integral part of his behaviour.

The verbal language of deaf-blind is a language of touch. This finger alphabet or dactyle speech performs the function of oral speech. The deaf-blind child is taught written speech (the Braille type) simultaneously with the oral one.

Mastering dactyle speech the child trains in normal oral speech as well.

Together with the rehabilitation course the deaf-blind children take up courses in all school subjects according to the curriculum.

They also become accustomed to different kinds of socially useful labour, for example, they help at the school canteen, mend the furniture, make toys for junior trainees, work in the school garden, take care of the poultry and rabbits, clean the school-yard, etc.

When the deaf-blind reach the age of fourteen they become the responsibility of social security services and of the society for the blind. At this age they can be admitted to local branches of the society for the blind which sponsors the work on social and vocational rehabilitation of the adult deaf-blind. This work is carried out in three stages.

It starts with vocational training that deaf-blind trainees are given in school workshops when they reach the age of 16. Thus, the deaf-blind girls are trained to sew bed-sheets, towels, blanket covers, pillow-cases, sacks, etc. at the school sewing workshops. At wood and metal workshops the deaf-blind boys can manufacture six kinds of articles which requires the mastering of over twenty operations.

The kinds of occupations the deaf-blind are trained for at the school workshops correspond to the types of the local training-production centres of the society for the blind where the trainees can be employed. At the same time the trainees can master some professions exercised at the local factories so as to have an opportunity to get a job not only

within the enterprises for the blind but also in open industry. In accordance with the curriculum of elementary vocational training, 25 hours per week are used for a general education, while 18 hours are spent for the work proper. Having taken a one-year course of vocational training, 17-year old deaf-blind people are eligible for a State pension equal to the one fixed for the visually handicapped of Group I.

At the next stage of professional rehabilitation the deaf-blind secure employment at a training-production centre of the society for the blind while all kinds of assistance in their every-day life are offered by the boarding school for the deaf-blind. On obtaining employment at the training-production centre, some of the trainees master additional professions, for example, counting, threading and packing of pins, reinforcement of electric cord points. All the trainees are obliged to continue their general education by attending evening classes. The curriculum for this stage of rehabilitation specifies that 15 hours a week should be spent on general education, while the work proper should last for 30 hours.

At the final stage of the professional rehabilitation the deaf-blind are offered both employment and every-day services within the institutions of the society for the blind. Thus, they secure employment at a training-production centre and lodging at the hostel or a flat in an apartment house (for those married). At this stage much importance is attached to the establishment of their independent every-day life. The deaf-blind are given assistance in tidying up, cooking, arrangement of social events, etc. All these services are offered by the training-production centre of the society for the blind where the deaf-blind person is employed. For this purpose social worker personnel is provided. The social workers are also responsible for the creation of better communication conditions for the deaf-blind.

Alongside the continuation of the general education the deaf-blind need a reasonable organization of their out-of-work hours. The social programme developed by a local training-production centre of the society for the blind provides the following leisure time activities: dances, outdoor group games, paired bicycling, skiing, roller and ice-skating, playing special billiards, playing chess, draughts and dominoes, fishing, catering for domestic and trained animals. There is a special library at the disposal of the deaf-blind where the librarians and social workers organize reading of braille and ink-print newspapers and magazines; debates on new books are arranged. The deaf-blind can be provided with an opportunity, if so desired, to work in gardens, kitchen gardens, hothouses and so on. Various competitions are held to bring about the efficiency of the deaf-blind in different spheres of socially useful labour, self-service and sports skills, organization of leisure hours, etc.

The organization of out-of-work hours corresponds to each stage of the programme of the professional rehabilitation of the deaf-blind. Firstly, this work is carried on within the public education services, i.e. at special boarding schools for the deaf-blind, then blind work-mates employed by the training-production centre join the deaf-blind trainees in the leisure activities at the special school and lastly it is the

training-production centre of the society for the blind that is responsible for out-of-work hours activities of deaf-blind workers.

After the deaf-blind are given employment at the training-production centre of the society for the blind they become involved in the recreation activities of their blind colleagues. Thus, both the blind and the deaf-blind take part in trips, hikes and excursions, join entertainment parties and so on. All these activities contribute towards further socialization of the deaf-blind, to the development of their professional contacts.

All deaf-blind persons no matter whether they study at schools, work, or are catered for by social security institutions, are examined annually by doctors of different specialities. As a result of the thorough examination many diseases can be prevented, adequate treatment can be prescribed, urgent cases are subject to surgical intervention, prostheses are selected for those who need them.

Ophthalmologists, if they find it necessary, fit glasses or other optical devices. The partially hearing may obtain hearing aids, and so on. The deaf-blind are entitled to treatment at the sanatoria of the society for the blind. They can spend their vacations at rest-homes for the blind. Like the blind, they enjoy a great number of State privileges.

Particular importance is attached to technical aids for the deaf-blind which, alongside with tactile, vibration and dermographical methods of environment perception, facilitate their communication and cognition of reality. Reference can be made to special equipment used for the direct, back and reciprocal communication within a group of blind and deaf-blind braille readers. Normal people can also get in contact with the deaf-blind as the control panel is provided with an ordinary type keyboard and a transcribing device. Up to six interlocutors can take part in the conversation simultaneously. In front of the deaf-blind person there is a braille keyboard and a small panel on which braille letters spring up. When a sighted person types on an ordinary typewriter braille letters appear one by one and are set up in a line on the panels. Entering into the conversation a deaf-blind person starts typing his text in braille. The text appears in braille on all the panels and springs up in ordinary type on the illuminated board. In this way it is possible to establish bilateral communication between normal people and the deaf-blind on the one hand and maintain reciprocal communication among the deaf-blind on the other. The text of a conversation or a lesson is recorded on magnetic tape as a signal code and can be revised over and over again, if so desired.

The stationary equipment is widely used in out-of-work activities, for example, for holding meetings, debates on new books and discussions of different kinds, for reading of ink-print newspapers and magazines and especially for the provision of evening classes for the deaf-blind.

There are individual portable devices at the disposal of the deaf-blind as well. These devices facilitate immediate communication with normal people. Technical aids make it possible to involve the deaf-blind in studies and work, to turn them into active members of the community.

The programmes of social and professional rehabilitation of the deaf-blind developed and carried out by various services, draw the deaf-

blind out of the isolation imposed on them by vision and hearing deficiency. As a result, they obtain access to different spheres of human activities and knowledge, to ethics and aesthetics.

Thus, at present in the Soviet Union about 60 deaf-blind persons are employed at training-production centres of the society for the blind. Some of them work at home. A number of the deaf-blind prefer to settle down in the country doing some farming job.

To make our paper more convincing and to show the role of various services for the deaf-blind we would like to cite as an example the story of Mr. Ardalion Kourbatov. He was born in 1920. At the age of a year and a half he lost his hearing and by the age of five he had become blind. As a result of training and work he mastered a great number of professions. He became extremely skilled in cardboard, metal and woodwork, brushmaking, reinforcement of electric cord, operating hand and power presses. At present, he is employed at a training-production centre of the All-Russia Society for the Blind in the town of Toula. He is considered one of the most efficient workers. Mr. Kourbatov is married to a deaf woman; they have two children with normal vision and hearing.

Deaf-blind who have aptitudes for advanced learning can benefit from higher education. An outstanding example is Mrs. Olga Skorokhodova, a former inmate of the Kharkov school and clinic organized by Prof. I. A. Sokoljansky. In 1961 Mrs. Skorokhodova defended her thesis for a master degree in pedagogical sciences. Now she works as a senior research worker at the Institute of Defectology of the U.S.S.R. Academy of Pedagogical Sciences. Her book "How I perceive, imagine and interpret the environment" has been translated into many foreign languages.

In conclusion, we would like to say a few words about the research carried on in the field of psychological assessment of the deaf-blind and in the field of the development of methods of education of the deaf-blind. In this country, it is the Laboratory on Education of the Deaf-Blind at the Institute of Defectology of the U.S.S.R. Academy of Pedagogical Sciences that tackles these problems. Thus, the laboratory carried out an experiment on training the deaf-blind for entering a higher educational establishment. As a result of the training, four deaf-blind inmates passed entrance exams on general terms and were admitted to the Faculty of Psychology of the Moscow State University.

Now the Laboratory proceeds with its experiment on teaching the group of deaf-blind students at the higher educational establishment. The students are under the constant control of the scientists.

Of course it is too early to report that all the problems of the deaf-blind are settled. Today, the most urgent problem is to set up special services for developing technical aids for the deaf-blind. With this end in view we think it desirable for the World Council for the Welfare of the Blind to coordinate not only technical aids for the blind produced in its member countries, but also see to it that the development and production of aids for the deaf-blind is also coordinated on a worldwide scale. Equal importance must be attached to the information of those concerned with the new developments.

In conclusion, we would like once more to emphasize that the achievements of our country in the rehabilitation of the deaf-blind definitely result from the involvement of education, public health and social security services in settling the problems of this category of handicapped. The Soviet State takes constant care of the prosperity of all the people and especially of the welfare of disabled citizens.

SERVICES FOR THE VISUALLY IMPAIRED WITH ADDITIONAL HANDICAP

by Dr. F. Sonntag, President, Bund der Kriegsblinden Deutschlands

Blindness is a severe handicap which for most people brings considerable restrictions in life. These restrictions have an even bigger effect if additional physical handicaps are present. It is, therefore, very much appreciated that the World Council for the Welfare of the Blind pays special attention to the existing services in such cases.

70,000 blind people live in the Federal Republic of Germany. 5,000 of them are war-blinded. For the latter we have exact statistics available concerning additional handicaps due to war injuries. Therefore, all those services will be discussed here that are already known amongst the war-blinded with additional handicaps. Of course, all this knowledge and experience gained can also be used for the blind with additional handicaps either from birth, through accident or illness.

I. The main groups of war-blinded with additional handicaps

According to the statistics kept by the Bund der Kriegsblinden Deutschlands (Union of the War-Blinded in Germany) there are 2,300 blind people with additional handicaps due to war injuries amongst the 5,000 war-blinded. The following statistics are restricted to war-blinded with particularly severe additional handicaps where known services and aids have proved their worth:

1)	Blind people who have lost both hands or have similarly severe injuries to the arms or hands	...	...	...	...	134
2)a.	Deaf-Blind	...	...	...	...	13
b.	Blind with defective hearing	...	...	...	...	37
3)	Blind who have lost several limbs or one arm, one hand, one leg, or one foot	...	...	...	...	353

Those services and aids that have proved to be of special help to the three groups of handicapped people mentioned above will be discussed separately.

II. Services and aids for blind persons With additional handicaps

The Bund der Kriegsblinden Deutschlands has decided to take particularly special care of its members with additional handicaps due to war injuries. The implementation of rehabilitation courses, the development and supply of orthopaedic resources and aids for the blind, as well as the obtaining of a nursing person or an admission into a nursing home should the permanent nursing person have fallen ill, have been proved particularly successful.

A. Special rehabilitation courses

The rehabilitation centre of war-blinded in Bad Berleburg is part of our organization. This institute has 90 beds as well as several rehabilita-

tion rooms, a training kitchen, a swimming pool, a gymnasium, a bowling-alley, and some modern equipped lounges. The institute was finished in 1969 and has been visited since then by many of our friends from Africa, Asia, and Europe who mostly stayed for one to three months. Our guests were able to get an impression of the many facets of our rehabilitation programme.

1. *Rehabilitation courses for handless blind persons or those with equally severe injuries to the arms or hands*

These rehabilitation courses last for three weeks. The blind can take part in a rehabilitation course once a year. The State pays for all costs. Doctors from an orthopaedic hospital show them the latest prosthetic developments. They also take part in fitness-training, sport for the disabled, gymnastics, swimming, dancing, and walking. In addition to these activities the blind person can attend lectures in social medicine, social privileges, and psychology and often shows remarkable achievements in occupational therapy.

2. *Rehabilitation courses for deaf-blind and blind with defective hearing*

These rehabilitation courses last from 10 to 14 days. Courses lasting longer have not proved to be a great success since they are a considerable strain for the participants. However, the blind person can join a rehabilitation course every year and all costs will be paid by the State. The deaf-blind and blind with defective hearing are introduced to newly developed communications devices. Moreover, as an occupational therapy they are trained in pottery, woodwork, wickerwork, and weaving. Some blind persons with defective hearing have installed their own workshop in their homes with the financial support of the State. There they continue their occupational therapy in pottery, weaving, woodwork, and wickerwork.

3. *Rehabilitation courses for blind persons with other additional handicaps as well as for blind persons without additional handicaps*

Our organization also arranges rehabilitation courses for special fields, e.g. for blind women, blind physiotherapists, blind radio amateurs, and tape amateurs. Furthermore, lectures are given in braille, in the reading of geographical maps, and in using the various resources for the blind. The rehabilitation courses last two to four weeks. It is possible to take part once a year and in most cases the State will cover all costs.

B. Special orthopaedic resources and aids for the blind

1. *Resources for handless blind persons and those with only one hand*

For these blind persons the myoelectrical hand is an important help. It has to be considered, however, that the use of the myoelectrical hand is more difficult for a blind person than for a sighted one, because the gripping movements of the forearm prosthesis should at least partially be operated optically. The myoelectrical hand is an artificial forearm with a plastic hand which can imitate almost all movements of a natural hand. This prosthesis can be regarded as almost being fully developed. The myoelectrical hand registers the

weak electrical currents in the stump of the arm caused by moving the muscles. The currents are transmitted to a transistor-equipped amplifier. These currents are also used for controlling the prosthetic mechanism. The currents are amplified by means of a battery which drives a small motor, which in turn causes the individual movement of the finger. Some handless blind persons in Germany have already been fitted with electronic hands.

Amongst the orthopaedic resources for handless blind the electronic SUROMAT-telephone dial aid is of considerable importance. The blind person can operate the big push buttons of the dial aid and dial any wanted number easily and without error with his arm stumps or prosthesis. The telephone is held by a hook so that the blind person can hear and speak into it. All handless blind persons in Germany have been given an electronic telephone dial aid on request.

The 'Closomat', too, has been delivered to all handless blind persons in the Federal Republic of Germany on request. The 'Closomat' is an automatically functioning toilet; the cleaning and drying of the body is done automatically.

2. Resources for deaf-blind persons and those with defective hearing

For these blind persons the electro-braille is of a great importance. It is possible to use the electro-braille as a conference installation. If one of the callers operates the typewriter then all the other deaf-blind persons can read the message in braille on their electronic recording strip at exactly the same time.

The main mechanical/technical communication devices in use are known. They enable a blind or sighted person to type the letters of the alphabet on a machine. The deaf-blind person can register the typed letters and in this way receives the message. The letter-glove serves the same purpose for a sighted person. He can type the letters printed on the glove and by doing so gives the deaf-blind person a message.

Also very popular is the wrist-watch with an alarm-mechanism. The deaf-blind person can set the alarm-mechanism and through vibration of the watch will be made aware of or woken up at a particular time.

There are a great number of efficient non-portable hearing-aids for blind persons with defective hearing. Special mention can be made of the Siemens individual trainer. Even with very little hearing left this appliance makes it possible for him to understand the words of a speaker at the same time cutting out all crackling. The words registered by the microphone are radio-transmitted to the receiving set of the almost deaf person. By these means the blind person with very bad defective hearing can keep speech contact with his environment for some hours at least.

The Brailloamat was developed for the centre of the deaf-blind persons in Hanover. The Brailloamat has proved successful for over a year now. It is an ersatz-telephone for deaf-blind persons. In the telephone network the six points of the braille writing are converted

into sounds. At the other end of the line through a telephone coupled with an electronic recording strip the sounds are received in legible braille. The deaf-blind person is warned by means of a radio-controlled vibrator on his body when a telephone call for him arrives. The Braillomat is technically so developed that it can be connected to the private telephone of the deaf-blind in the Federal Republic of Germany. It is to be hoped that this plan can be realised as soon as 1975.

3. *Aids for blind persons who have had limbs amputated*

Blind persons who have lost one or more limbs receive, of course, a sufficient orthopaedic supply. These prostheses are well-known and don't need to be detailed any further.

C. Finding a nurse for the blind person or his admission into a nursing home

In most highly-developed industrial nations it is difficult to find a nurse for those blind people who have, for example, lost their own nursing person through illness. This is particularly evident when trying to find a nurse for a blind person who has lost his hands or his hearing. In such cases only admission into a nursing home comes into the question. The Bund der Kriegsblinden Deutschlands is at the moment building a nursing home in its health resort in Bad Pyrmont. Five beds are reserved particularly for those blind persons who have severe additional handicaps. This nursing home should be finished in 1975.

THE IMPROVEMENT OF SERVICES FOR THE AGEING BLIND

by Mr. A. Nicolle, France

The Programme Committee has paid me the honour of asking me to prepare a paper on the special needs of the ageing blind.

This is a very serious problem, not only from the social point of view but also because of the considerable number of persons involved.

In the industrialized countries it is estimated that the proportion of the blind population aged over 65 is at least 40%. This is explained by the fact that blindness is often caused by diseases which affect people who are getting on in years, such as cataracts, diabetes and glaucoma. In the developing countries, the number of aged blind is not so high, the average span of life being shorter; moreover, society often having retained a patriarchal character, the family plays a bigger part in the care of its old folk, whether they are blind or not. No doubt this difference is decreasing with the progress these nations are making on the economic and social level, so that it is not too soon to begin to think of the special problem concerning their aged blind and to look for appropriate solutions.

Like any other handicap, blindness becomes more of a problem with age because the compensatory faculties of the other senses lose their acuteness and the disadvantages of senility tend to add further difficulties.

This is also true for people who became blind during childhood or on reaching maturity and who are usually well adapted to their particular condition of life. The case of those who lost their sight after the age of 60 is nearly always more critical for they have the greatest difficulty in getting adapted. Many of them never manage to learn braille; nowadays, no doubt they can spend their time agreeably thanks to talking books, the radio and even television programmes, but they often have to be content with a vegetative life and are often unable to do their own housework, to shop and prepare their meals, and therefore have to rely on other people to carry out these necessary chores.

In this respect, women are obviously at more of a disadvantage. It would thus be logical or even fairer to provide the aged blind with very substantial benefits to enable them to meet their needs, such as special homes. However, it is a fact that in highly developed countries the aged blind are on the contrary clearly at a disadvantage compared with the younger blind people. For example, Social Security systems which provide workers who have lost their sight before the age of 65 with a disability pension, usually supplemented by an allocation covering the expenses of an attendant, do not grant any supplementary benefit to those retired persons who have become handicapped, as though this disability were more or less due to old age and consequently did not entitle the pensioner to any compensation.

One can understand that it is possible for an elderly person to manage to live on a relatively small pension when he is in possession of all his faculties; however, as soon as illness makes it impossible for him to carry out the current activities of daily living, he will need the help of another person, whose services should be free of charge. It would therefore seem necessary in the first place to perfect the present pension systems in order to enable their beneficiaries to obtain, in the case of serious disability, a substantial compensation to cover the expenses of an attendant.

Fiscal advantages should also be given to elderly persons, above all the disabled, whose resources are very limited. Free travel on public transport in towns and their suburbs should be granted to the elderly blind, as well as a reduction of at least 50 % on their railway and plane tickets.

But these financial measures, although fundamental, would not be enough to guarantee the elderly blind a life free from care, to which they are entitled. For, as already pointed out, many of them, and this becomes more frequent as they get older, are victims of disabling illnesses which strike persons of the third age in particular. Some of the diseases are rheumatoid arthritis in all its forms, heart and vascular disorders with their incidence on the nervous system, such as hemiplegia. It is obvious that people who are so seriously affected cannot, except in rare cases, continue to live alone; they should be able to go to homes for the aged where they would be given lodging and receive all necessary treatment.

We are aware that the very principle of these homes for the aged is the subject of much criticism today: many people only see them as kind of "death waiting rooms" and denounce the segregation they impose on their inhabitants and the rest of the population.

Nowadays, family homes are preferred, made up of studios complete with sanitary installations and well-equipped kitchens to enable elderly people to remain independent. Communal services are, however, provided in these establishments where those who wish to may have fairly cheap meals and avail themselves of the services of a nurse or a social welfare worker. Even a doctor is often available on certain consultation days. We are not unappreciative of the merits of these institutions which appear excellent for elderly people in good health and even in some cases for well-adapted blind people, but they are not suitable for people in poor health or for "the very old folk", if we may so call them, who are over 80 or 85 and have not sufficient strength to look after themselves properly.

For these two categories, it is indispensable that homes for the elderly, which we could call medico-social—half-way between the home for the elderly persons in good health and hospital services—should be created.

In these homes, which have already been set up in various countries and which public authorities are recognizing the need for more and more, the blind would have their own room equipped with sanitary facilities, but would also benefit from the services of a para-medical staff, including nurses and physiotherapists who would be responsible,

under the direction of the patient's doctor, for looking after their hygiene and giving them any treatment needed. These homes should therefore have a larger medical department and more staff than the present old-age pensioners homes, so that the blind person could, whenever necessary, obtain the help of an attendant and also enjoy the facilities of modern geriatry.

But all these provisions which would ensure satisfactory living conditions for the aged blind should be completed by special services provided by public authorities or private philanthropic bodies so as to maintain and develop as much as possible the link between the elderly blind and the rest of the population. In the first place, it would be necessary to provide home-helps for the aged blind living at home if their usual attendant is unavailable. Social clubs should also be set up where the elderly blind could meet other able-bodied members interested in their welfare.

The role of these clubs would consist primarily in finding readers for the elderly blind, organizing indoor games and accompanying the visually handicapped to the theatre, concerts, etc. In fine weather trips to the country or holidays could also be organized for them.

The staffs of medico-social homes for the blind should also include specially trained people who would encourage the pensioners to take part in all activities and amusements likely to brighten up their lives and develop human contacts.

Such are the three major bases on which we think action for the aged blind should be developed.

In this rather brief study, we do not pretend to have drawn up a catalogue of possible, or at least desirable, activities and we will be very grateful to the members of the Assembly for any additional suggestions they might wish to make in this respect. Our proposals may be summarized in the following six recommendations which we are submitting for the approval of the General Assembly:

1. Provision in all systems of disablement insurance and old-age insurance, where it does not already exist, of a substantial rise in pension, without regard to age or income, to every pensioner with a disability necessitating the help of an attendant.
2. Exemption from income tax for all aged blind with small incomes.
3. Free travel for aged blind and their guides on all municipal and urban transport; reduction of 50% on the normal price of tickets for the elderly blind and free transport for their guides by rail and air.
4. Creation of medico-social homes specially designed for the aged blind or multihandicapped and equipped in such a way as to provide the necessary assistance and medical treatment.
5. Organizing home-help services to aid in emergencies when aged blind find themselves alone or in difficulty.
6. Setting up social clubs for the aged blind with the aim of developing contacts between them and the rest of the population and encouraging them to participate as much as possible in social and cultural activities.

COMMUNITY RESOURCES FOR CULTURAL AND RECREATIONAL ACTIVITIES BY THE BLIND

by Dr. Helmut Pielasch, German Democratic Republic

Issues of cultural and recreational activities by the blind should play a major role in the programme of every organization of and for the blind. In my paper I should like to elaborate the experience we have gained in the German Democratic Republic and what has come to our notice from abroad. Particular emphasis will be laid on forms of cooperation with the public.

Primarily we understand by social resources public funds made available to organizations of and for the blind to carry out their activities, assistance in the field of blindness by activities of schools, of rehabilitation centres, and of social services. In addition we count as social resources the use of rooms, provision of teaching staff, assistance by Houses of Culture, by general schools, libraries, evening classes, and other institutions. Last but not least, let me mention the national legislation facilitating the visit of theatres and concerts by the disabled.

I should like to discuss the following problems in detail:

1. aim and purpose of special cultural activities by the blind;
2. introducing the blind into cultural activities;
3. ways of independent creative cultural activities by the blind;
4. taking care of the cultural requirements of the blind;
5. literature in braille and on tape;
6. organizing recreation for the blind;
7. summary and conclusion.

1. Aim and Purpose of Special Cultural Activities by the Blind

In modern States there exists the basic conception of society being responsible for cultural problems in the widest possible sense. Aims and tasks of general cultural policy make no exception in the field of blindness. In this connection, one may ask whether it is necessary to have special cultural policies for the blind. Yes, it is, because some special circumstances have to be recognized, which are based on the individual and social impact of blindness. Some cultural activities are directly accessible to a blind person, like wireless and television, disclosing the acoustic world; and the experience of nature is felt directly by the blind. Nevertheless, blind persons need special aids, as for instance braille, and special instruction to compensate for the loss of a sensual faculty. Here, society must come to his assistance.

Special cultural activities by the blind we see as promoting their integration into society. It is a fact of life that many who have become blind later in life incline to resignation and isolation from society. Cultural activities provide opportunities for the blind to take up and cultivate numerous contacts with the public which in turn will counteract the tendency towards segregation.

2. Introducing the Blind into Cultural Activities

Where may the blind receive basic directions to the treasures of culture that may render his life more beautiful? There are two ways of access:

a. School

At school, those blinded early in life should become acquainted with the basis for leading a cultural life. Already, numerous schools are doing excellent work in this specific field by providing the students not merely with knowledge and skills according to the general curriculum, they also encourage the blind by instruction and extra curricular activities to follow special interests, including literature and the theatre, music, concerts, languages, hobbies and amateur wireless operation, sports, hiking, tourism, chess and household management, dancing, and other entertainments. Thereby the principle of integration is being promoted. At this phase, the organizations of and for the blind utilize the resources of schools and transmit their own experiences to the schools assisting as far as possible at a variable and adapted education of blind youth.

b. Training Courses in Elementary Rehabilitation

In developed countries those blinded early in life represent only a small fraction of the blind. The majority of visually handicapped persons lose their vision later in life. For them a different way has to be found—the way of elementary rehabilitation. It is a means for educating, training and informing the recently blinded and getting them accustomed to the new condition of being blind. They will have to understand that films, television and games have something to offer, even to blind persons. They must be guided in learning to enjoy theatre performances and concerts, to follow actively their inclinations and interests, both alone and in the company of others, requiring them to overcome a certain timidity. Finally, they should be taught how to use tape recorders and radiograms. Learning braille in this connection plays an important part. Instruction courses in braille in this country are organized by the rehabilitation centres and the organizations of the blind as well as by evening classes. The latter provides technical organization and bears the costs, while our organization provides tutors and brailers.

3. Ways of Independent Creative Cultural Activities by the Blind

In cultural activities one distinguishes between independent creative cultural activities and cultural entertainment. Within the framework of cultural activities in the GDR we try for instance to mobilize the creative potential of our members. At present our association numbers more than 60 choirs and singing groups as well as 35 instrumental groups and dance bands. In addition, we know of 50 singers and musicians who are performing soloists. Our organization supports its own cultural groups by arranging performances and assisting them financially in the purchase of instruments and, if desired, of special

clothes. We also use our influence as a social organization in trying to make available additional resources for them. Our district committees, for instance, organize cooperation with Houses of Culture and enterprises by securing rooms for rehearsals and exercises; they also see to it that instructors and conductors are engaged and paid for. In case an enterprise patronizes one of our groups, it supports the group activities by providing rooms, financial means and other facilities, besides arranging performances on its site.

Let me deal now with the purpose and activities of circles and hobby groups, which play a substantial role in our specific cultural activities and contribute considerably towards leisure activities by our members. In part they follow their interests more individually, while some prefer as more practicable and inspiring to unite with others. They are not discouraged even if they have to travel longer distances to meet. About 125 circles and hobby groups divide their interests in:

- Writing (literary work)

- Radio features and other tape recording work

- Drama reading and recital

- Modelling

- Wireless operation

- Hobby craft

- Needlework

- Discussing recorded music performances

- Discussing recorded literature

All these cultural activities specifically directed at blindness have the active support and guidance of our organization by a special section attached to our Central Board. The officers in this section methodically instruct the groups and generalize their experiences in special circulars and by courses. An important part, though, of their activities is co-operation of local groups and individual members with cultural institutions and Houses of Culture of enterprises in the respective towns and localities. We are strongly interested in having our cultural and hobby groups as well as circles conduct their work within the framework of general cultural activities to avoid becoming isolated from the life of the sighted environment. Collaboration with cultural institutions and enterprises is a source of inspiration to our groups, enhances comparison and permits them to display the results of their achievements. At certain intervals we organize regional and national contests to encourage further progress.

4. Taking Care of the Cultural Requirements of the Blind

Let us now turn to the problem of taking care of the cultural requirements of the blind.

Efforts should be made to arrange divers programmes for events and meetings and thus satisfy the needs of the different groups of members—the young, women and the elderly blind. Generally acclaimed are musical performances of choirs, discussion groups and soloists, secured by our organization, for instance, from general schools, vocational training schools and from enterprises. Many such contacts have, over the years, become firm ties in many towns and localities. It goes without

saying that our groups and soloists are performing at our own events.

We aim at bringing our members as much as possible into close contact with public life and letting them participate in its problems by providing lectures and discussions. Very popular are public meetings with leading personalities, since they provide platforms, where the questions of our members are extensively answered and where they receive useful hints.

Organizations of and for the blind encourage their members to attend cultural performances for the general public. In their journals they publish theatrical and art reviews and announce forthcoming events and invitations. They also review records and new books. In almost every country radio and TV programmes too are available in braille, sometimes additional emphasis being laid on radio features and concert programmes.

Many of the district committees in our country are in close contact with theatres and orchestras so that the blind are given free access to performances. Blind citizens in the GDR are generally recognized by law as severely disabled persons and, consequently, are entitled to visit cultural performances at greatly reduced prices. We count more than 25 organized groups of theatre-goers who regularly attend programmes. They listen to introductory talks, follow discussions and pay visits behind the scenes which heightens their impressions. The manifold contacts with the public and with cultural life are not an end in themselves rather they are intended and designed to bring our members in the closest possible contact with the sighted community.

5. Literature in Braille and on Tape

Knowledge of braille is an elementary prerequisite for intellectual and cultural independence of a blind individual. It enhances social mobility and employment. As the problem of mastering braille has been covered by other papers at the General Meeting, let me dwell on the responsibility of the organizations of and for the blind in disseminating braille. At the Braille Conference of the European Regional Committee in Oslo in 1973 this matter was strongly emphasized. We have to use every opportunity and have to make every effort to impart knowledge of braille to every blind person. So, internationally, courses of elementary rehabilitation have proved to be very useful means and have led to a considerable increase of readers in braille in a number of countries.

As to libraries for the blind, they must keep supplying up-to-date and diversified literature to their blind readers and listeners. It appears necessary to have the libraries increase their activities in response to the need of the reading community by permanently funding them sufficiently with supplementary grants.

An analysis of literature purchased by the blind was submitted to the Oslo conference indicating that efforts by all those responsible have been made to reduce the retail prices. Some sell at production costs while others grant discount rates, making actually paid prices drop even below the price of ink-print books. It really is desirable that books for

blind readers should be sold at prices not higher than those of ink-print books.

In this context I should like to draw your attention to the mobilizing role of journals in braille and on tape publishing regularly information about hobbies for blind persons. Quite a number of journals deal exclusively with definite subjects like literature, music, chess, puzzles, amateur engineering, wireless operation, needlework, and acting. A survey conducted by the Secretariat of the European Regional Committee has shown that the number of such journals is increasing, justifying the conclusion that they are playing an important part in cultural activities of the blind.

6. Organizing Recreation for the Blind

Recreation should be of major concern for organizations of and for the blind. Sufficient recreational activities are a necessity for every blind person, especially the blind in permanent employment. This should be an important mission for all organizations who are intent on maintaining the health and working ability of their members. While the organizations of and for the blind have been striving to overcome isolation of their members, they always preferred special homes for recreation because of the activating effect of exchange of ideas and experience. In addition, these homes have accommodation and other facilities more closely adjusted to the special requirements of medical attention for the blind.

Recreation of blind persons in the GDR has been possible for many years owing to generous governmental support. Five homes in pleasant natural surroundings are placed at our disposal. Accommodation can be offered to every employed blind citizen approximately every other year and to other members once in three years. A term lasts for three weeks. Accommodation is free of charge for the blind person and his or her guide. Wages or salaries will not be stopped during the period of recreation. Fares, too, are paid both ways by the social insurance. We think such recreation facilities are absolutely essential. We therefore propose a permanent settlement by public funds guaranteeing permanency and reliability in the recreational service. In addition, our organization has at its disposal a number of holiday homes and bungalows, whose rooms are rented at cost price mainly to families with children.

7. Summary and Conclusion

1. Organizations of and for the blind shall promote large-scale cultural activities of special interest to the blind within the framework of those humanist goals which are part of the general cultural policy of society. This will be an important contribution towards integrating the blind into society.
2. Progress of intellectual and cultural life in the field of blindness presupposes the support by State and public of organizations of and for the blind. This applies particularly to libraries for the blind if they are to continue to meet the demands of their readers and listeners for diversified and up-to-date literature.

3. In order to develop the growing creative potentiality of the blind individual, suitable hobbies and meaningful pastimes shall be encouraged by publications and by providing the necessary conditions. Such conditions calling necessarily for support, may include technical facilities and aids, schools, libraries, enterprises and other institutions.
4. Schools for the blind shall pay more attention to making their students familiar with the potential treasures of cultural activities and to teaching them to use leisure purposefully.
5. For the newly blinded elementary rehabilitation is the suitable way of introduction to culture and sports for a life of self-reliance and sufficient leisure. Courses and instruction within the bounds of elementary rehabilitation shall be extended and particular emphasis should be laid in this context on the teaching and learning of braille.
6. Sufficient recreational activity is essential for all blind persons, but it is an absolute necessity for those in regular employment. Therefore, regular accommodation in recreation homes is very desirable and shall be financed, if possible, by the insurance schemes.

Discussion

According to available information 70 % of the world's blind population, in the more developed countries, is above 65 years of age—Governments should help those people who have a problem of comfort and safety, and also that of company, through appropriate measures. For instance, a radio set should be provided to the aged blind who cannot afford it. Rest homes or institutions where the aged blind can have centralized supervision and be served one main meal a day while leading an independent life, offers a solution. Five such centers have been opened in the United Kingdom.

Travelling facilities must be granted to the blind and, while difficulties are still experienced at the international level, many countries entitle their blind population to benefit from free or reduced fares.

Educational facilities for deaf blind children are being developed in the world—often after training of the professors at the Perkins School in the U.S., e.g. the special school built in Brazil. The experience in the Soviet Union using special technical equipment was described

In conclusion, delegates appeal to the World Council to give special attention to the problem of the ageing blind, including leisure activities. Contact with the remainder of the population is needed and in this field the World Council could take the initiative.

PROFESSIONAL SESSION 7

Thursday afternoon, August 15, 1974
Scheduled Aug. 12, 1974

ACCESS TO WRITTEN COMMUNICATION

Chairman: Mr. Robert R. Barnett, USA.

REPORT OF THE WORLD BRAILLE COMMITTEE

by Dr. Walter Cohen, Chairman

During the period under review, Braille systems have been worked out for a number of developing countries and territories, but seldom, if ever, have I been advised by the person or body who requested these systems as to their efficiency. Assuming that silence implies consent, I trust that the work presented has met the needs of those concerned.

WORLD BRAILLE USAGE

As is generally known, the excellent book by the late Sir Clutha MacKenzie, "World Braille Usage", is out of print and in view of the steady development of Braille systems for various languages, both in the contracted and uncontracted form, it has been found desirable to publish a revised edition of this volume. Negotiations were set in motion by our President and, as a result, Unesco is planning to have a new edition made. This is mentioned in the proposed programme of activities for 1975/76 to be submitted to Unesco General Conference in 1974.

BRAILLE MUSIC NOTATION

My colleague, Professor G. Vassio of Italy, and his sub-committee on Braille Music Notation, have been working on this involved subject since Professor Vassio assumed the position of Braille Music consultant in 1969. From the rather brief report submitted to me by my colleague, it would appear that no real progress has been made in attempting to achieve some degree of uniformity in Braille Music Notation. The report gives little optimism for an early solution and although WCWB has been prepared to make a subvention available in the usual manner to a standing committee for the quinquennial period, this does not seem to have helped in the search for uniformity. The problem is aggravated by the fact that some countries, e.g. Japan, have found it necessary to work out yet more music systems but one cannot blame them as communication in respect of most Braille matters through the World Braille Committee is non-existent—most countries develop their systems further without considering it necessary to notify this Committee.

BRAILLE MATHEMATICS

This aspect of our work was kindly taken over by our Russian colleagues at the meeting of the Executive Committee of WCWB in Moscow in May, 1972, and Mr. Zimin is making his report available to WCWB Heads of delegations.

NEW BRAILLE SYSTEMS

South Africa

Since the introduction of the metric system to South Africa, a metric system was devised and approved for Afrikaans and it is also applicable to the Bantu languages of this country. The Xhosa Braille system has been revised and developed and it is anticipated that the revised systems for Zulu, Sotho and Tswana will be available early in 1974.

India

A new Hindu Braille Primer is now available from the National Association for the Blind, Bombay, India, through the good offices of my colleague, Mrs. Swaran Ahuja.

Attempts were made to attain a uniform Braille system for Urdu, as this language is spoken in both India and Pakistan, but owing to circumstances beyond the control of my Indian colleagues, no progress has been made in this direction.

Ecuador

A Braille system for the Auca Indians of Ecuador was devised and forwarded to the body concerned, but no advice as to its suitability has been received.

Peru

A similar request for a system for the Quechua Indians of Peru was received but we await further information on the language itself.

Papua and New Guinea

Braille systems for Motu, Dobuan, New Guinea Pidgin and Kuanua languages of the South Pacific were carefully scrutinised, suggestions offered for improvements and approved.

East Africa

We are in correspondence with Kenya and Tanzania in regard to developments in Braille for the Swahili language.

Afghanistan

As a result of the efforts of my colleague, Mr. John Wilson, we were able to submit a Braille system for Pushto for Afghanistan and as this language is also spoken in Pakistan, copies were forwarded to this country as well. We have heard nothing from either Afghanistan or Pakistan.

Spanish-Portuguese

A conference on Spanish-Portuguese Braille was held in 1973 in Argentina which was attended by Don Enrique Pajon on behalf of the World Braille Committee and the report of the conference is being awaited.

CONCLUSION

From the above it would appear that a comparatively small amount of work has been undertaken by the World Braille Committee, but attention is drawn to the fact that we are not kept informed regularly of developments in Braille systems in various countries, so that we can only make a meaningful contribution when we are consulted. From information that trickles through to me from time to time, it seems that the lack of library facilities, especially in developing countries continues, and, where possible, efforts should be made to provide such library facilities. For example, in South Africa we issue a monthly magazine in Braille in four African languages gratis plus monthly magazines in English and Afrikaans, two in number and also gratis, and in addition our National Library has a large variety of Braille books in English, Afrikaans and four African languages, and additions to the Library are made monthly. In no other African country are such facilities available to Braille readers, so that South Africa lends books to Malawi, Botswana, Swaziland, Rhodesia, Mauritius and Lesotho. The position in developing countries in other regions of the world is probably also not much better than in the developing countries of Africa.

MODERN RESOURCES FOR THE PRODUCTION AND PRESENTATION OF BRAILLE

by C. W. Garland, Technical Officer

The Royal National Institute for the Blind, London

At the last meeting of the World Assembly in New Delhi, Mrs. Nowill dealt very fully with the many problems which make braille so costly and difficult to produce. I think we must acknowledge the fact that braille is still costly and difficult to produce and will remain so, despite the extensive research and development which has been carried out in recent years. In some areas we have made undoubted progress, but there are problems which remain unsolved. For example, Mrs. Nowill referred to the difficulty of producing the more technical publications such as those for higher levels of education or manuals for computer programmers, which take so long to transcribe that they often cannot be made available by the time they are needed, or alternatively would be out of date by the time they were completed. As far as I can ascertain, the situation has not changed to any appreciable extent despite the considerable expansion in the use of recorded tapes where this is a suitable medium for student or professional works. The answer to this problem of producing not just more braille but for meeting the increasing need for more specialized braille publications would still appear to be in the training of more people as transcribers, but in practice most countries find that the recruiting and retaining of suitably qualified people to undertake this difficult transcription task remains highly problematical.

We must therefore recognize in these modern days the increasing importance of manual transcription, which at present still utilizes machinery which, apart from relatively minor improvements, has remained unchanged for very many years. The braille writing machines used by blind people and voluntary transcribers in their homes, as well as the manually operated master plate stereotyping machines and many of the platen and other presses found in braille publishing houses, continue to function alongside more recently introduced equipment and are still making a major contribution to the quantity of braille produced throughout the world as they have done for possibly the last half century. The traditional braille producing plants were however developed in an era when labour was relatively plentiful and because of this they are largely unsuitable for direct expansion to meet the increase in demand for braille. Recent trends have therefore been directed not so much towards the improvement of existing production processes, but more towards the development of higher speed devices and of systems which are less demanding on the operators as to the extent of their knowledge of braille. We therefore find in the larger braille publishing houses a mixture of traditional and very modern equipment, each main-

taining their own important place in producing braille in various levels of text complexity.

The adoption of commercial data processing techniques has perhaps resulted in the greater number of innovations in braille production and presentation over the last decade. Early work at the American Printing House carried out in conjunction with IBM first demonstrated that the computer could be successfully used by non-brailleists for the transcription of contracted braille. Since then many individually developed and differing systems have come into operation throughout the world. For instance at the American Printing House and the RNIB, the computer is now firmly established as an essential and integral part of the braille production plant, and although the equipment at these two organizations is quite different in design (with the APH using a large IBM system 360 and the RNIB the smaller IBM 1130), and while both organizations operate their own individually designed automatic plate transcribing machines and electronic control units, both systems nevertheless have a close compatibility and are currently producing extensive amounts of the lesser complex transcription to a standard which is indistinguishable from manually produced American and English Grade II braille publications. The operation of such a process by key-punch operators who have no knowledge of braille relieves skilled manual transcribers of much of the routine magazine and book work, leaving them free to apply their experience to the more difficult and urgent publications.

The computer programs required to translate the alpha-numeric input into a fully contracted braille form are in themselves complex, and some countries, particularly those where the braille reading population is small, have considered modifying the braille code to render it easier to process by automatic means. In those countries however where extensive libraries and widespread braille usage are already established, there is understandably considerable resistance to the machine dictating such change. Nevertheless, there are practices in the use of braille contractions which are illogical. They are frequently the subject of editorial discussion and decision and being illogical they become very difficult, if not impossible, to process by an automatic system.

In Denmark, in order to assess the efficiency of the Old Danish Braille System, a computer analysis was undertaken to establish the effectiveness of rules and contractions over the 4,000 most commonly used words taken from a million words of literature. It was observed that the evolutionary introduction of some contractions had been carried out by expert brailleists with little regard to the difficulty being imposed on the learning of braille and some were shown to have almost no practical value. As a result, a new and simplified Danish system was introduced in 1971, incorporating the encouragement to use more Grade I braille in difficult texts which would otherwise necessitate the introduction of special rules.

The computer and associated equipment is of course costly to acquire, to operate and to maintain and is unlikely to be applicable in less developed countries where even paper may be difficult to afford. It is not however essential to own a computer to undertake automatic

transcription, and a number of publishing centres hire time from a commercial user or come to some arrangement with an educational establishment whereby off-peak or time-sharing facilities can be acquired cheaply, or sometimes at no charge at all. In this way much of the operating and all of the maintenance cost can be avoided.

The APH and RNIB systems, as you may know, are designed to produce the master metal plates from which embossed braille is reproduced in quantity by means of rotary or platen presses. In addition at the RNIB the Solid Dot braille process utilizes stencils produced by the computer system.

The Solid Dot process is essentially a high volume system which is quite unsuitable for single or small quantity copy production. Due however to the uncrushable nature of the plastic dots, this braille does lend itself better to being handled by high speed modern machinery where, for instance, in magazine production, an almost standard Sheridan Macey six station stitcher and guillotine is automatically collating, stitching, and trimming up to six 16-page sections into finished magazines. It is now our intention to add facilities for roll-wrapping, labelling and feeding the addressed publications into postal sacks ready for collection by the postal authorities for distribution to readers. Thus, apart from hand loading the sections on to the machine, they will remain untouched by the operators from then on. Another advantage of the Solid Dot process, which is now also in use at the Mainichi Press and the Helen Keller Association in Tokyo, is that it consumes only about 50 % of the quantity of paper needed for embossing processes.

For those organizations using platen presses for embossed braille production which are manually fed with the paper sheets to and from the platen, it may be of interest that in addition to the Heidelberg automatically fed press which will accommodate only small size pages, there is now a version of the German-made Krause cutting and creasing press which the RNIB has developed into a braille platen press. The master metal plates are rapidly assembled to the platens where they are retained by vacuum and full size four-page interpoint sheets are fed by automatic feeders at up to 2,000 sheets per hour, thus one machine with one operator offers the same output as 3 or 4 hand-fed machines.

The method selected for producing a book or document in braille is dominated to a great degree by the complexity of the text and the number of copies ultimately required. Another variable is of course the financial resources of the organization undertaking the publishing and where, in less fortunate countries, one finds the choice of production method very limited and often confined to hand processes, in the western hemisphere there is to be found a range of different processes, both simple and highly sophisticated, for the publisher to choose between.

The production of single or small quantity publications is needed mainly for school teaching texts, examination papers, and some specialized professional documentation, most of which in single copy form is hand transcribed on to paper and, if required in small quantity, is reproduced by the widely used Thermoform process. The vacuum forming method of reproducing braille and diagrams as well as maps

has been found to be an invaluable facility by organizations for the blind, where the process was in use long before the Thermoform machine came into manufacture. One hears of instances where the Thermoform, and in particular the cost of Brailion sheeting is considered to be too expensive. It should not however be overlooked that a vacuum forming machine is a very simple piece of equipment and provided a vacuum pump can be acquired, the remainder of such a machine could easily be constructed on a local basis and alternative thermoplastic sheeting used. Another factor in the interests of economy is that, whereas the Thermoform machine produces only single-sided braille, it is equally possible to vacuum-form plastic sheet copies of double-sided braille sheets and thus halve the amount of plastic used. It is of course necessary for the braille writer used to prepare the initial paper master to be capable of double-side interpoint or interline embossing, and, due to the present high cost and world shortage of paper, this might well be an area where designers could usefully apply their attention.

The requirement for braille is not of course confined to specific publications. It extends into various needs where blind people are functioning in environments requiring better access to printed materials, the operation of machinery in the factory or office and in the use of a variety of highly visual instrumentation in the course of day to day work or study.

Apart from its expanding role in the production of braille and where there is considerable scope for further development, the computer is also a means of employment for blind programmers who in turn have their own very specialized needs for braille. Commercial line printers for embossing the alpha-numeric braille computer code into continuous fan-fold stationery have been widely used for some years and need no elaboration here. These impact printers can be expected, however, to fall into disuse in the near future in favour of visual display terminal devices and some alternative equipment for the blind programmer must be provided.

A variety of interesting projects have been directed towards the development of braille terminal devices. There is the M.I.T. Braillemboss machine suitable for operation in a teletype situation at an embossing speed of approximately 10 characters per second using continuous stationery and producing a page form braille output. There is also the Triformation BD3 paper tape embossing device capable of use at up to 15 characters per second. Of far greater potential application however is the Triformation page embossing terminal offering a considerably higher embossing speed of up to 120 characters per second; also, according to the designer, such machines are suitable for further development to operate as high as 240 or even 720 characters per second. Such machines could do much to economize on the cost of computer time when used in an interactive mode or purely for the purpose of information retrieval. They could in addition be used for the rapid reproduction of limited quantity braille publications from a magnetic tape store, thus eliminating the need for metal master plates; they also use paper and not costly plastic. I understand that such a system is soon to be operat-

ing in Denmark, but on this occasion the IBM 1403 line printer will be used, fitted with a special braille embossing attachment designed by IBM for that machine.

Another device which is capable of use as a slow speed braille terminal is the IBM Electric Braille Typewriter. This use of the IBM machine is interesting because as the embossing hammers are already in braille form, no special software is needed to convert the computer code into braille characters.

The ARTS, or Audio Response Time Sharing System, developed by Dr. Kenneth Ingham, is a most interesting project which, if developed as a commercial service network, could provide an economically viable service to the blind who, with comparatively simple keyboards or touch-tone telephone devices, could remotely and interactively access a centralized computer for various purposes of information retrieval and receive this data audibly over the telephone link, in braille by post or in braille in the home or office if a suitable terminal embosser was available.

The idea of having a non-embossed display of braille is by no means new. Many designs of single and multiple character device have in the past been constructed, but they invariably left much to be desired from the reader's point of view and none has so far emerged from the prototype stage. Nevertheless, with the vast expansion in the use of electronic equipment in commerce and the many opportunities that could be opened to the blind, the likely application of such displays should not be overlooked. In the U.K., Clarke and Smith Ltd., the manufacturers of the British Talking Book for the Blind, have developed an electro-mechanical display which can be assembled into a line length of any number of braille characters according to the application, and this equipment is now being further developed as a computer terminal of 72 characters to function as a sighted teletype. The terminal is to incorporate a magnetic tape buffer store to enable it to be used both on and off line and the braille displayed at the reader's own chosen speed. The blind operator is therefore handling small cassettes of tape instead of the quite large amounts of embossed paper which would otherwise add considerably to the continuing cost of his study or employment.

This type of electronically driven braille display is also applicable for use with modern electronic calculators and digital instruments such as is demonstrated by the devices produced by the Swedish Telub company, giving a five or twelve character readout of the normal electronic visual display.

At the Argonne National Laboratory another machine has also been developed as an operational prototype. This too adopts a magnetic tape on which braille data is digitally recorded, and this drives a moving line of braille embossed into a plastic strip travelling from right to left across the top of the small portable tape play-back machine. The braille on this endless tape is erased as it passes from the display area to enable new braille characters to be regenerated as it appears once again in the display. The speed of movement of the tape is controlled by the user who is free to scan back and forth or to hold a stationary reading position within the limitations of the display length. With suitable equipment the blind user could record his own braille magnetic tapes, but the

prime motivation behind the Argonne Development was, I understand, to reduce the bulk of braille books by recording them on tape instead.

Another most promising project in Sweden, which combines the techniques of such braille displays with a conventional production process, is that of the Zoltan rotary press being developed by Trask Datasystems, in which the embossing cylinders contain 32 lines of 36 braille cells, each cell consisting of movable pins which can be locked in an inner or outer position. These cylinders are set up very rapidly by means of a mini-computer; the pins are locked and embossing at high speed into roll fed paper is commenced with each double-side interpoint page being cut and punched for binding. During the embossing process, the computer is reading in and translating the text for the next page; thus the Zoltan press eliminates the need for metal plates as well as the manual setting up times of other conventional rotary and flat bed systems.

Print reading devices for use by the blind are not really a subject for this paper, but we must refer to the development in Israel of a machine called Transicon which electronically scans the printed page of a book and is designed to recognize a number of the more commonly used printed typefaces and converts the printed text direct into a Grade I braille output. At present this output is, I believe, an embossed paper tape, but the machine could be coupled to alternative forms of device such as a page embosser or a braille display. It could also be interfaced to a computer to process a Grade II output. I am not at present sure to what level of accuracy the Transicon will read print but the designers have decided that the time has come when machines must be constructed and put into use to assess their value, rather than spend more time making them more sophisticated and perhaps too expensive to purchase. We must wait and see.

The braille paper tape embossing device used with the Transicon was also developed in Israel and is called the Phylab Brailer. It originated as an attachment to any mechanical or electric typewriter to provide an embossed paper tape copy of the matter being typed, which a blind typist could also use to check the accuracy of her typing.

Very little of what has been said so far about the trends for the production and presentation of braille is likely to be of practical interest to those less fortunate countries who are possibly not able to consider such sophisticated equipment. In instances where labour is plentiful, economy in materials is almost invariably a factor of prime importance. Braille duplicating processes should ideally avoid the use of metal plates because of the increasing cost and shortage of suitable metals; and for maximum economy of paper the braille pages should be embossed on both sides. At present only the Marburg duplicator will meet these conditions and we must therefore regard this process as the most economic hand duplicator available.

It is disturbing that the American Multigraph Duplicator is no longer in manufacture because, like the Marburg machine, apart from the initial and quite modest capital cost of the device itself, it utilized only paper and could be operated either manually or electrically. Processes like the Marburg and Multigraph duplicators have been long estab-

lished and can hardly be considered modern. I nevertheless felt it important to mention them because there are still instances where the ordinary hand frame and style are the only means available for embossing braille. In this space age of opportunity I feel that we have perhaps over-reacted to the computer at the expense of other needs, and that designers should not concentrate their attentions entirely on the benefits offered by complex technology, but should endeavour to assist with the nearer to earth problems of those countries in particular where resources for the creation of braille are next to non-existent.

However, in order to discuss modern resources for the production and presentation of braille, it is inevitable that frequent reference to the computer must be made, but mere use of the term 'computer' is extremely vague in that one could be referring to a vast and complex system, or alternatively to a miniature and inexpensive piece of logic circuitry. It would be more correct to state that it is as a direct result of the application of data processing equipment and the techniques of control electronics to the problems associated with braille that so much progress has been made over the last decade. It is not possible here to list out the many configurations of equipment and procedures adopted throughout the world in automated braille systems, each system functioning according to its desired national objective in scale of operation, language, level of braille coding and finance available for the investment. There is still plenty of scope for further development of most systems currently in use and there is vast additional potential in the automatic composing systems slowly coming into use in the commercial printing industry which should be watched.

There are many exciting possibilities for improved methods of braille production, but at the risk of repeating myself and despite all our advances to date, one point which has become abundantly clear is that for many years to come we shall continue to rely heavily on the human transcriber, and this is perhaps an area where much more attention needs to be given towards making this hard and monotonous task less demanding and more attractive to more people.

DEVELOPMENT IN TALKING BOOK SYSTEMS

by Anders Arnör, De Blindas Förening, Sweden.

Let me start by reminding you that a person who has lost his sight has lost his most important sense of information as well. Written information is of vital importance in these technologically advanced times, and the visually handicapped must have access to the most essential flow of information, or they will not have a chance to keep up with the general development of society.

Even if the quantity of the information influx was more limited at the beginning of the 19th century, Louis Braille apparently realized quite clearly that access to written communication was a precondition for the integration of the blind. The introduction of the Braille system was a big step forward and a superior method to make use of one of the remaining senses—touch. It took technology until the middle of our own century to find methods which could make full use of an even more efficient means of processing information—hearing.

My presentation of the different talking book systems will be divided into three groups, according to the media carrying the spoken information. These groups are: gramophone records, open reel recordings and tape cassettes.

Gramophone Records

If we exclude the phonographic cylinder, gramophone records or discs were the first technical solutions for a talking book system for the blind. Strangely enough, the blind were the first to utilize the long playing records.

As an information carrier, the gramophone record has many advantages. It is comparatively easy to cue, to find a particular section, since the contents can be indicated on each side and it is possible to move the pick-up quickly over the record. These records can also be packed and mailed easily.

The record has also another important advantage. The reproducer, the record player, is easily available at a rather low price. The big disadvantage in the beginning was the comparatively high production costs of small editions of the gramophone record which made it possible for the larger language areas only to supply their blind with this type of talking book. These records used to be quite heavy and fragile, but these drawbacks have now been eliminated with the introduction of new and improved materials.

Open Tape

Sweden's delegate to the first international conference for the blind in New York 1931 said that he was certain that the talking book would prove utopian and out of reach for small countries with languages

understood and used only within their own areas. However, this proved to be an incorrect prediction.

A new and large market for tape recorders emerged in the middle of the 1960's. It was intended for the sighted, but it brought hopes of access to literature not only for all the blind without any knowledge of Braille, but also for a quantitatively larger access to information for those visually handicapped students, employees and professional workers who were able to read Braille.

The economy of a country as well as its social attitude towards the visually handicapped certainly have a big influence on the possibilities to expand a talking book system. The magnetic tape technique makes it possible to produce records with ease and to reproduce them for library circulation etc. The production costs of a talking book as such are not of decisive importance, though. The large expenses refer to the tape recorders which have to be supplied to the visually handicapped.

The two big disadvantages of the open tape are the thin tape which the old-age group especially—probably the largest reader group—find difficult to handle, and the trouble in finding a particular section on the talking book, to cue it, since each track has a rather long playing time.

Cassettes

It was mainly these two aspects which set off a discussion in several parts of the world as to whether it would not be worthwhile to develop a cassette system that was especially adjusted to the requirements of the visually handicapped. A special cassette system was introduced in England at the beginning of the 1960's, but the first solution involved large cassettes and a large number of tracks and resulted in a tape cassette which was too large and too heavy to handle. It was introduced in several of the Commonwealth countries.

With the drawbacks of this particular cassette in mind, what is now known as the Clarke & Smith system was developed. It paid great attention to the visually handicapped readers' requirements for a suitable talking book system.

At almost the same time, the multi-national Philips company presented a cassette system for commercial use. Their so-called compact cassette system has now been introduced for talking book purposes in a number of countries, such as the United States, the Federal Republic of Germany, the Netherlands, Denmark, Norway and Sweden. The Clarke & Smith system is used in Spain, Portugal, Switzerland and Finland, in addition to many Commonwealth countries. Personally, I regret that such a split exists, since it prevents instead of facilitates an increased international exchange of literature.

A Comparative Study in Sweden

Before we decided in Sweden to change to the use of a cassette system, we made a comparative study on the systems mentioned here.

The study included:

An international study on experiences of the two cassette systems.

A reading test where 36 visually handicapped persons read five books each on both systems.

An enquiry regarding the supply of soft ware, or recorded material, available on the general market.

A comparative survey on production methods and costs, and

Another survey on the supply of tape recorders and their functions.

The international study was based on the answers to a questionnaire sent out to 22 countries. Thirteen replied, 6 of these favoured Clarke & Smith and 5 the compact cassette system, while 2 countries failed to state their preference. None of the two systems were said to have any disadvantages worth mentioning and the study did not manage to guide us in our choice.

The reading test showed that 78 per cent of the sample preferred the compact system. It also showed that two-thirds preferred several small cassettes to one large. 71 per cent of those taking part considered the compact cassette player easier to operate than the Clarke & Smith machine, and just as many felt that the quality of the sound was better on the compact cassette.

The enquiry about the supply of soft ware showed a growing commercial supply of music, study courses, school programmes, professional journals, etc.

The comparison of production costs showed a very small difference between the two systems. With regard to the compact cassette system, we now face the difficult task of choosing the reproducing equipment. We must find a unit capable of copying talking books in rather small editions—about 10 copies or so, although the unit should be able as well to produce talking newspapers or magazines issued in perhaps 500 copies. We have to choose between a unit with a low reproducing speed and many slaves or one with a high reproducing speed and a small number of slaves. We found the American-made Telex and the Danish Lyric to be of greatest interest.

As to tape recorders, we realized in the end that there was an enormous supply of compact players, and that the quality of the different machines varied considerably. Even if the large supply of players makes it more complicated to choose, it also gives each individual person the chance of selecting the type of player which he thinks will best suit his personal requirements. This is an important factor, since we found that different types of reader groups have different facility requirements. Older people usually only want a play-back machine, whereas a group of more active readers also want to send talking letters. Very active visually handicapped persons, as well as students, want to be able to use the fast forward or rewind, which makes it easier to cue a talking book. They also want to have the possibility to vary the tape speed, in order to read the material quicker. The multi-handicapped talking book readers may need distant control facilities to operate their tape recorders.

The Clarke & Smith system was represented by one model only in our survey. A later model has been produced in the meantime, and I must say in all fairness that had this model been available earlier, we might have had a higher preference rate for Clarke & Smith in the final results of the comparative survey.

However, we found that some other points were of greater importance to our final decision than the results of the survey:

1. We hesitated to tie ourselves to one single supplier of tape recorders and cassettes, though perhaps not so much during conditions existing today, but mainly in view of what can happen in the course of a longer period of time.
2. The large commercial supply of recorders for compact cassettes and the rapid developments in this particular field.
3. The increased commercial supply of soft ware.

The Norelco System in the United States

The Clarke & Smith system has two, from many aspects, great advantages. Most books can be fitted into one single cassette, and although each track has a long playing time, it is easy to find a particular section of the book through the use of the index track which can be recorded on the cassette. An average book recorded on the compact cassette would require seven C90 cassettes. (They have a playing time of 90 minutes each.) The United States has begun to use only 50 per cent of the standard tape speed—2.38 cms per second—as a means to lower the total number of cassettes needed. This has been made possible through the permission of Philips, which owns the patent rights for the compact cassette with the playing speed included. During discussions with the Head Office of Philips in Holland, we understood that they might consider making an exception with reference to the standard speed, in the case of machines intended exclusively for the use of blind people. We have been and are, of course, still very interested in this half speed, but as is the case with the use of the Clarke & Smith system, we would be dependent on one single supplier, or at best a few suppliers of tape recorders, since very few manufacturers would be interested in entering such a small market as the one represented by the blind. Furthermore, the interest of the general public in this low speed is estimated to be very limited.

The Americans are also trying to go one step further, in order to reduce the number of cassettes and are, therefore, developing a four-track technique for the compact cassettes. Personally, I have my doubts about this, in view of the high demands on accuracy which must be set on the playback machine if it is to retain good quality of sound also after a longer period of use.

Variable Speed

In the last few years, there has been a growing interest in variable speed on the tape recorder, not only by the visually handicapped who are in great need of a method through which they can cover the contents of a talking book rapidly, but also by other groups who are interested in this possibility. There are principally three methods to increase the talking speed (Foulke and Sticht, 1966), all classified as "time compressed speech":

1. **Quicker speech.** This method is based on increasing the reader's talking speed, a simple solution since it does not require any special

equipment. However, there is the definite disadvantage of a comparatively low maximum talking speed when you use this method, and this makes it less suitable.

2. Increased tape speed only. The talking speed can be altered by playing the tape at another speed than the recording rate. This method has its limitations, too. For instance, if the talking speed is redoubled through the use of this playback technique, the voice level is raised one octave, and this in turn has an adverse effect on the quality of the sound and changes the speech to "Donald Duck talk".

3. The sampling method. This technique was introduced by Grant Fairbanks at the University of Illinois in 1954. Segments of the recorded material are cut away at different intervals, but there is no loss of complete speech elements, since the cut out part is so short that the human ear cannot even detect that certain segments have been taken out.

A Swedish research scientist has recently published a report on "The Visually Handicapped and Variations in Talking Book Reading Rates" which presents the results of a literary survey on the effects of various methods for variation of reading rates in connection with recorded material. It also presents results of experiments made by the author to test some hypotheses formulated as a result of the literary survey.

Both sighted and visually handicapped subjects were studied. The experiments show that the normal reading rate of a talking book is considered to be too slow by all subjects. The reading rate can be increased by 20 per cent without any significant reduction in learning. The learning effect is also related to an index which takes into account the time gain when using higher rates.

Some experiments have been made with the "Dykor", a new aid for time compressed speech using the "sampling method". The purpose of these studies was to analyze the individual manipulation of the reading rate. The results show that all subjects prefer using rates which are higher than the original reading rate of the recording. Sighted subjects tend to use a 20 per cent increase when listening to texts of medium difficulty, while the visually handicapped subjects, probably due to the fact that they have adopted a more efficient listening strategy through training, prefer an increase of about 40 per cent. The reading rate is directly correlated to the degree of difficulty of the text.

The differences between individuals within the same category are relatively small, the variants for different text conditions being between 0.01-0.1, which shows the consistency of the results.

Both sighted and visually handicapped subjects make more changes in reading rates in the beginning of a text than later on. The number of changes is also increased when the degree of difficulty of the text is changed.

This occurs both when the following text is easier and when it is more difficult. The subjects obviously try to find an optimal reading rate for each kind of text.

The results of our experiments also have relevance for the problem of activation during listening. The constant modulation of the reading

rate puts the subject in a more active position which according to literature contributes favourably to the learning result.

Fast Forward and Fast Rewind Listening

I have mentioned a few times the problem of how to find a particular section on an open reel or a cassette quickly, as required for certain types of recordings, primarily textbooks and manuals for employees. It is also of considerable importance in the use of talking magazines. As a result of the growing supply of talking magazines which exists in some countries, the visually handicapped person probably neither can nor wishes to read everything on the tape. Instead, he selects the articles in which he is interested from the table of contents, just as the sighted person would do.

It is possible with the Clarke & Smith system to leaf through the tape recording. We have been using a method for the compact cassette in the last two years, where we insert a 50-period buzz of 10-15 seconds between the sections we want to indicate. This signal can hardly be heard when you listen to the recording played at the standard speed, but if the tape is held against the tone head at fast forward or rewind, you can hear the signal as a "blip" sound. This technique can be extended by using, for instance, two signals to indicate a new chapter and one signal to indicate new sections or pages. Unfortunately, fast forward or fast rewind listening is only possible on a few cassette recorders.

Conclusion

Summing up, I want to stress that the grounds for a change to cassettes are obvious:

This equipment is simple to operate, which is especially important to older people and to the visually handicapped with reduced hand functions.

The supply of soft ware is increasing.

There is a large choice in tape recorders for cassettes which can meet the individual demands, and

The commercial market is developing at such a rate that today most manufacturers have stopped producing low-priced tape recorders and will soon only provide the more expensive professional or semi-professional tape recorders.

As has been the case so many times in the past, we have to state as a fact that the visually handicapped live in a society where the majority of the people are sighted and that we, consequently, must accept to go along with the general development. We know that the technological progress is very rapid. The load of information increases from day to day. As a result, the information carriers must have an ever-increasing capacity. Today we hear that in just a few years time there will be a new medium, the television disc, primarily intended to store both the picture and sound information. The very large capacity of this disc can very possibly lead to a come-back within one decade of the disc as a suitable medium for talking books. As I pointed out at the beginning of my paper, the disc has many advantages, which makes it a fully acceptable alternative to other forms of reproducers.

READING MACHINES

CONCEPTS AND POSSIBILITIES IN THE FUTURE

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Introduction

The concept of a personal reading aid to give the blind access to the printed word has encouraged Organizations for the blind, Government agencies and sensory researchers to embark on long-term Research and Development, to discover if practical solutions exist.

The greatest number of blind people would benefit if a small portable aid could convert the black patterns of print into natural speech, but so severe are the linguistic and technological obstacles that the achievement of this goal may remain remotely in the future.

So far, the only alternative has been to develop aids whose optical scan of the printed word is electronically converted into patterns of musical tones heard through an earphone; while a more recent approach concerns an optical to tactile conversion of print. Letter shapes in this system are imaged and appear one at a time as vibrating facsimiles of print.

Computer science has been harnessed at another level of investigation into reading problems and the practicability of eventually making high speed magnetic tape recordings available from a direct automatic scan of print. These latter researches are the subject of long-term investigations in the U.S.A.

A further project aims to match detected optical features of print to key acoustic sounds in an arbitrary language—a computer has been programmed and the most discriminable code evolved, using "Language Laboratory" techniques to find the best code.

Attention has also been directed towards a conversion of print direct to braille—embossed on paper tape in the first instance. This system is envisaged more as a group educational or library facility rather than as a personal reading aid.

Reading aids based on arbitrary oral codes or on tactile imaging of the type already described, share with sophisticated mobility aids a common problem—the potential user faces a learning task that can be markedly influenced by factors such as age, motivation, hearing acuity and touch sensitivity.

We are told that vision accounts for about 95% of all the sensory information that reaches man's consciousness from the world outside. In the absence of vision, the human receiving system has to re-arrange the division of labour between the remaining pathways to the brain and a multi-disciplinary approach to the problem has been generally adopted in the sensory devices research area.

In attempting to match new patterns of auditory or tactile stimuli to the neural processing system, there is always the final biological step

to take, irrespective of the elegance of the engineering or the design concept.

The personal reading aids briefly described present their information in a narrow or sequential form and this is in marked contrast to the visual comprehension of print where reading rates can be measured in terms of hundreds of words per minute. Several words can be perceived simultaneously with distinctive features such as ascenders and descenders and serifs playing an important role.

Natural speech is also comprehended in parallel—there is overlapping of phonemes or separate sounds that make up individual words.

It is hardly surprising that researchers at Haskins Laboratories reached the conclusion several years ago that the display problem at their particular level of investigation was solved and that natural speech would be persevered with and eventually made available on magnetic tape.

However, the achievement of this latter goal may still lie some years ahead.

Certain reading aids which have passed through multi-phase development programmes will be briefly considered, together with their implications as “self help” devices.

Development and Manufacture

Reading aids that have reached the production engineered stage have invariably passed through several phases of development and evaluation. There is general agreement amongst workers in this area that at least four or five phases are involved from the first Laboratory model or prototype to the production of a batch of aids suitably engineered to permit meaningful field evaluation.

Prominent amongst user requirements are: low weight and compactness, simple control switches including re-charging the built-in batteries, while from the engineering standpoint, ruggedness and the reliability associated with modern modular construction, together with high resistance to a wide range of climatic conditions are amongst the more important specification requirements.

Within these constraints, researchers and design engineers are usually operating at the limits of opto/electronic technology in their endeavours to meet the stringent needs.

In addition to the considerable drive and dedication that has been demonstrated by the several research groups in recent years, there is the question of continuous long-term support, which usually includes the setting up of evaluation procedures and supervisory training staff.

Optophone Type Reading Aids

In the second decade of the present century Doctor Fournier D’Albe invented what was probably the first reading machine which he designated the Optophone.

About the year 1920 a small batch of machines was produced in the U.K. by the well-known range-finder/ballistics specialists, Barr and Stroud and Miss M. Jameson in London has been using an Optophone

ever since that time, achieving a maximum reading rate direct from print of about forty words per minute. Of typewriter dimensions, the machine has variable speed self-tracking facilities for the photo sensing head to traverse across the page. Six photo-cells in a narrow vertical column gather all the pattern information about letter shapes; decrease in illumination falling on any one photocell causes a tuned oscillator to generate a tone heard in an earpiece.

Six tones are arranged to give a chord in which line height is signalled as the pitch of the tones and the user has to learn a complex oral code to recognise all the letters in the alphabet. Later, rhythmic patterns associated with particular words—short words in the first instance—are learned, but the problem is to discriminate one letter sound from another. Lower case vowels in English and several European languages can be ambiguous, “o” and “e” particularly can cause trouble. Scanning a single letter may produce four or five bursts of tones and chords and the great excess of oral information thus produced is reflected in comparatively slow reading rates, in the early stages of learning.

Support by the Veterans Administration in the U.S.A. enabled the Batelle Memorial Institute to produce a small batch of modernised Optophones early in the last decade and, while self-tracking was not incorporated, a much quieter background than hitherto resulted.

Optophones have now been superseded by a much smaller and more flexible reading aid called the Visotoner, and although it is based on Optophone principles of a narrow “keyhole” scan of print, it can be advanced on low friction rollers across the page. The Visotoner has a wide magnification input of ten to one, enabling very large print to be scanned when necessary. There is the characteristic shortcoming that different type styles and numerals cannot usually be handled with facility.

Training programmes including tape recorded lessons have been evolved by the Hadley School for the Blind, Winnetka, Illinois, and there is also a screening course for potential students.

Total weight is a commendable half-kilogram and there are simple controls including re-charging the batteries. The aid is truly portable with provision for carrying on a shoulder strap.

The best readers in the U.S.A. approach the reading rate of the remarkable Miss Jameson who still assists in appraising new models on an international basis.

Returning again to the narrow vertical scan of print in Optophone type aids, this is, of course, the opposite of a visual scan of print where several letters and even a few words are simultaneously perceived.

The Veterans Administration’s programme of research at Mauch Laboratories, Ohio, include variants of the Visotoner—there is the Visotactor and Digitactor, while the Stereotoner incorporates twin auditory channels. In the latter aid, low tones are signalled to the left ear and high tones to the right ear, but results are awaited about the degree of increased discriminability that results from the stereophonic display of musical tones and chords.

The small gifted group of blind Visotoner readers have integrated the aid into daily living and a few into employment situations—classifying

literature in classrooms or sorting personal mail or verifying typescript without removal from the typewriter.

Considerable motivation and ability has been demonstrated by these pioneer users of oral display reading aids and the position generally is still evolving.

Optacon Reading Aid

The name Optacon means optical to tactile conversion of print.

The aid, which has resulted from joint research efforts at Stanford University and Stanford Research Institute since the mid 1960's, reached the production stage early in 1972 when evaluation trials were commenced both in the U.S.A. and in several European countries.

The researchers have taken into account the two dimensionality of the touch sense, demonstrated by blind people for over a century in comprehending the braille code and earlier, in reading embossed letter shapes.

The two main components in this system are a miniature camera connected by extension cable to control electronics in the chassis. A vibrating tactile display is engineered integrally with the chassis, comprising 144 small rods arranged in a mosaic of 6×24 .

The camera, weighing less than 100 gms, is tracked on low friction needle rollers across the page with the right hand and the outline of whole letters or any printed character focussed on to the camera's "silicon retina" is simultaneously imaged via multi-core cable to the control electronics and the mosaic of 144 vibrating metal rods. The vibrating array measures about $2\frac{1}{2}$ cm \times 1 cm and is formed into a shallow trough or cradle to give good location and contact with the skin tissue of the left hand index finger which remains stationary on the vibrating rods which lightly impact the finger with an identical image of the camera's snapshot of each letter or character sensed.

The tactile images are typically about five times the size of normal print but there is variable magnification of $2\frac{1}{2}$ to 1 at the input to accommodate a fair range of type sizes. Letters are presented in sequence—one at a time, and so far the researchers have not been able to present, advantageously, a wider display. The frequency of vibration of the vibrating pin mosaic has been optimised at 250 Hz.

Special features include: an "invert switch" to read white on black, a volume control to vary the vibration strength of the display, coupling facilities to connect Optacons to each other in special teaching situations and an outstanding instructional facility to provide a sighted teacher with continuous visual monitoring of the tactile display, by means of a small visual display screen where individual characters appear at about twenty times the size of normal print.

There is also a mechanical tracking aid to assist students in the early stages of intensive training.

Training material includes manuals in programmed form, magnetic tape self-pacing facilities to dispense with the camera if need be in early training, while more recently an automatic page scanner has become available.

Typically, intensive training extends to between 30 and 50 hours on

a one-to-one teacher/student basis—the mechanical tracking aid is usually dispensed with by the end of the first of a two weeks' course.

A 2 years evaluation of twelve Optacons in the U.K. indicates that the aid can be of assistance to different categories of blind people.

Students 16-18 years of age attained reading rates of about 40 words per minute in optimum cases, after a few months spare time instruction by a qualified teacher.

A group averaging 40 years of age did not attain such high rates, whilst a second year group which included music and language teachers read at 20-30 w.p.m.

Some participants who did not achieve functional reading rates had already reached fairly senior status in their employment situations and probably had sighted assistance available to them for essential tasks. However, the music and language teachers find the Optacon helpful in classifying printed lesson material before distribution to their staffs—these teachers had already attained “head of department” status. Some of the better readers use the aid to scan books—noting the contents and reading continuous passages when these are needed, whilst others read short story books in a recreational context. There is an indication that some of the older readers referred to may have reached a plateau, but sufficient numbers have not yet been involved to confirm this statistically. In the case of the students, optimum reading rates cannot yet be predicted.

No extensive trials in training young adults for occupational duties in computer programming or the general area of data processing have taken place in the UK, but a forward-looking programme at a Rehabilitation Centre in Heidelberg has integrated a considerable number of Optacons into their nine months' training course with the objective of using the aid as a terminal device in computer programming—to check “print out” or to aid in programme writing.

After completing intensive training all U.K. participants receive weekly “follow-up” visits from a qualified Optacon teacher who issues new training material, checks and reports on progress so that accurate records can be compiled.

Comparison of Oral and Tactile Aids

The concept of using a camera of advanced design to display a whole letter or any print character at a time, has reduced the excess of information so long associated with narrow column multi-scanning of individual letters.

True musical pitch discrimination is probably possessed by those gifted people who can translate musical codes and it may be that there are many more blind people with good touch sensitivity than the number who have good pitch or frequency discrimination. One of the most important advantages of the “mosaic camera” is its tolerance to different type styles—imaging only is involved and provided the user has acquired a good knowledge of letter shapes, then identification through touch is practicable.

St Dunstan's Reading Aid Researches

Following a five-year investigation at the National Physical Labora-

tory, London, to discover if Optophone type displays could be given added dimensions and so improve discriminability and reading rates, a six-year project has been supported at the University of Sussex with the aim of matching optically detected features of print to acoustic features in an oral code.

By computer simulation a range of oral codes has been compared to find the most discriminable. Matrices of rows and columns are involved to optimise the matching process, which depends on "key" optical features and "key" auditory features of consonant/vowel pairs. Again, severe linguistic problems were encountered even in this non-speech display. But students using language laboratory techniques have been able to discriminate sounds in an abbreviated language synthesised by the computer. A decision to go forward to the next phase and construct a working prototype has not yet been taken.

U.S.S.R. Reading Aid Researches

The writer has had interesting discussion with researchers at the Institute of Defectology in Moscow where investigations were concentrated on an Optophone type input with conversion to a "line of braille". At present results of these investigations are awaited but it is understood that a larger research group in another laboratory is attacking the problem at high level.

Researches in Canada

There has been a project for some years at the University of British Columbia concerning an oral reading aid designated the Lexiphone.

A small batch of aids has been produced, but evaluation results are presently awaited and there is consequently no information on the complexity of the learning task.

Group Facility Aids

On a somewhat higher level of technological complexity, the Mauch Laboratories are investigating the feasibility of "spelled speech" displays, employing self-scanning opto/electronics and logic circuits.

Information on the evaluation of prototypes is presently awaited.

Brief reference has already been made to a project directed towards the conversion of print direct to braille.

Transicon is the name given to an Israeli reading aid which is not primarily intended as a personal reading device, but rather as a group facility in education or in libraries.

After an extensive survey into specific needs in many countries the National Physical Laboratory of Israel initiated researches to discover the practicability of converting the printed word directly into braille—embossed on paper tape in the first instance.

It is probable that the output could be varied to meet a variety of needs as indicated in an earlier paper, i.e., braille display "line at a time" in which metal pins approximating very closely to the configuration of the standard braille dot are temporarily set up and replaced by the next line.

A self-scanning detector is combined with automatic means of decid-

ing on the kind of print involved and there is also automatic means to adjust for line spacing.

Letters are analysed for distinctive features in about nine type founts and a total of seventy-five characters can be handled and it is said that the associated logic may extend the range of print that can be handled.

A prototype demonstrated in 1972 at an international gathering of researchers comprised a console prototype about the size of a small desk which incorporates the scanner, braille embosser and the electronics.

The scanning head searches out the first line and locks on to it with some tolerance on the question of alignment. Automatic magnification facilities are included and the head advances across the page. Operator control is available for the rate of embossing the paper tape.

There is automatic provision for the return of the scanning head to the top of the next page, but page turning is manually performed.

Consideration has been given to inadvertent joining of letters in print and the ratio of letter width to height in various founts has been taken into account. Shift registers store a total of 48 positions built up from 4 samples of pattern information from each scanned character. There is a refinement of sampling techniques to handle distinctive features such as "ascenders" and "descenders" and serifs.

Finally detected characters are converted into the braille code with its 63 permutations—they are stored in a "buffer memory" before embossing on paper tape.

Summary

The continuous support provided in certain countries for a number of years has not resulted in any marked increase in the reading rates achieved using Optophone type oral displays.

Present technology has, however, enabled researchers and designers to meet the stringent specification requirements involved to give a degree of independence to a small number of people which otherwise they would not have had.

The availability of the first opto/tactile reading aid in 1972 has given some hundreds of students and adults the opportunity to experience a new approach to the problem and the first penetration into man/machine coupling situations has been made—reading computer print-out in data processing.

While initial evaluators of this system feel that long term experience in the education of the young will yield the best results, motivated adults are additionally using the tactile display aid in teaching situations as well as in daily living for sorting personal documents and checking typescript.

The practicability of setting up a large national reading centre facility will no doubt depend on aspects such as fully automatic print recognition in a range of type founts, but there are severe linguistic obstacles, usually taken for granted in naturally comprehended print and/or the spoken word in one's own language.

There could be merit in the intermediate category aid based on more complex recognition and processing principles, although at a predictably higher cost than the small, compact reading aid. This category

aims to relieve the potential user of the main translation task which, in the case of personal reading aids, imposes psycho/physiological limitations of the order earlier described and, consequently, resulting in modest reading rates.

A first goal of higher level aids might be to make possible reading speeds of 80/100 words per minute using a temporal braille display. The oral alternative at present appears to be a "spelled speech" output.

Concepts and Conclusions

There are indications that the benefits after many years of reading aid researches are polarising towards the education and employment of the blind.

There is a measure of agreement amongst professional evaluators and observers that reading rates as low as 20 words per minute may be considered to be functional values—taking into account the fact that direct access to print is involved. By comparison, it is the practice in some countries to stipulate as a condition of entry to training courses for a range of occupations, that a candidate should already read braille at minimum rates of 30/40 words per minute.

Rapid developments in communications technology in computation and data-processing generally are changing employment patterns in industrialised communities and, to understand and to operate these systems invariably involves sight—to check print-out from a computer or to view display screens on which printed text appears. Much of this information is automatically displayed, but the operator can at the pressing of a switch peruse any specific data that he may need in the course of his duties, so sophisticated are present-day data transmission, storage display and retrieval methods.

Even more diverse technology in presenting information is typified by "digital display" panels on which sequences of illuminated numerals in a particular code may indicate the operational state of installations as large as nuclear power stations or, at the other extreme, monitor tape position on a domestic recorder.

To provide this facility for the blind or the visually impaired, or to enable them to participate even in a small way in data processing or control-engineering situations, will call for a critical examination of more sophisticated ways of using braille displays or direct and voice recorded spoken information stored by the methods suggested, for immediate recall or up-dating.

New interfacing aids will need to be flexible and compatible with existing installations to permit different tasks to be performed even in the same organisation.

Some of the aids in this area have been referred to as terminal devices and information retrieval systems and it seems unlikely that they can be completely isolated from the aims and objectives of reading aids proper which, as previously stated, have already made a small but perhaps important penetration into data processing.

Should the more conventional outputs such as braille or speech become practicable, then a major benefit could result from a diminution

of the learning task, with a consequent raising of the age level, at which employment in the areas described might be taken up.

It would appear logical that any positive developments in the availability of aids along the lines suggested would also benefit education—audio/tactile teaching aids through to more advanced systems for teaching computer science.

Remarkable inventive genius in the recent era has resulted in an enormous enhancement of man's visual and auditory experience, but by comparison our sense of touch has received little attention. There is, of course, the outstanding example of the reading aid earlier described in this paper which is already adding another dimension to the tactile sense. There have also been valuable investigations, mainly in the U.S.A., to discover if feeding in information in parallel, through relatively large areas of the body's surface, could increase the rate at which information can be comprehended, in contrast to the limited rate at which serially presented information can be perceived by stimulating a highly localised area of a finger.

Touch is said to be man's most primitive sense, telling us about texture and temperature, about pressure and pain, about dryness, moisture and measurement and it tells us about braille.

Finally, the aids and developments described and the suggestions put forward are all primarily involved in supplementing human memory and restoring to some extent the break in the communications loop. Once information has been acquired, it can be released at the same rate as that of the sighted—to converse, record, operate key boards and so on, and to make the judgments and decisions that are daily confronted.

THE VALUE OF ESPERANTO IN COMMUNICATION FOR THE BLIND

by Mr. A. Dyckmans, Belgium

The author of Esperanto, launched on 26th July, 1887, was the Polish doctor and linguist, L. Zamenhof (1859-1917). It must be recognized frankly that the introduction of this international language has not always met with the success it deserved among the population, nor has it been encouraged as it should have been, due to the lack of interest on the part of public and private administrations.

I. Expediency of this Education—Criteria

Is it expedient to introduce in some way or other the teaching of an international language like Esperanto in schools for the blind and amblyopic?

The answer to this question must be based on an absolutely objective examination, leaving on one side all prejudices with no scientific foundation and arguments devoid of realism. It will only be in the affirmative if this education offers a real interest to those for whom it is intended.

II. Esperanto: neither Utopia nor Panacea

In spite of the prejudice and attacks of which it has often been the victim for the last 87 years Esperanto has developed throughout the world, proving that it was not a Utopia. Original and translated literature covering the most varied fields, from scientific reports to the subtleties of poetry, an already abundant Press, frequent and varied radio broadcasts, meetings and congresses sometimes attended by more than 4,000 persons from 40 countries, a network of delegates covering the five Continents, special and very intense correspondence, a diffusion which from East to West extends to political and religious systems of extremely varied character and to very numerous and highly varied professions, these are the elements which demonstrate the vitality of that language. It is a unique phenomenon in the linguistic field, and one would have to be ill-informed or insincere to deny the value of the direct and efficient contacts made possible by Esperanto to those who have taken the trouble to learn it.

However, Esperanto is not the panacea that some fanatics make it out to be; it is not aimed in any way at radically supplanting the national languages and, if by nature it is a planned language with a simple and regular structure, its study nevertheless requires effort and perseverance.

Esperanto is also a living language, a major language capable of fulfilling all the ordinary functions of the spoken and written word. It is still far less widely used than some of the present languages, but in

return it has the advantage of existing in every corner of the world and in the most diversified circles. It cannot be learnt without trouble, but it is nevertheless easier than any other language. Finally, it does not have the ability to make a non-gifted brain clever, but by virtue of its very structure it constitutes an incomparable instrument of intellectual gymnastics.

III. Advantages of Esperanto for the Blind and Amblyopic, in the Practical, Intellectual, Cultural and Human Fields

Let us now investigate the numerous advantages opened up by the international language to the blind and amblyopic at different levels.

1. **At practical level:** At the end of a school year, a course carried on under good conditions, enables the studious pupil:
 - a. to undertake in braille or on magnetic tapes, correspondence with Esperantists of other countries;
 - b. to read a number of works directly written in or translated into Esperanto, as well as periodicals, notably the universal review "Esperanto Ligilo";
 - c. to attend an international meeting or congress thus coming into direct touch with blind and amblyopic comrades from other countries;
 - d. to follow most of the international language radio broadcasts;
 - e. to get in touch with sighted Esperantists inside the general movements.

2. **At intellectual level:** Thanks to its planned structure the international language provides remarkable training for thought analysis, a habit of clarity and precision, the effect of which is comparable with that of Latin, but with far less trouble and in much closer contact with modern life; just as mathematics prepare the ground for sciences. Knowing Esperanto is an excellent preparation for the study of foreign languages and Latin.

3. **At cultural level:** By facilitating direct contacts with other countries and exchanges of information, Esperanto can be a support and a valuable incentive for geography, history and, of course, for the study of foreign languages.

4. **At human level:** The practice of Esperanto has already enabled blind and amblyopic persons to emerge from their moral isolation, either by furnishing them with correspondents having the same affinities, or by giving them an opportunity of mixing with clairvoyants in Esperantist groups.

Esperanto therefore offers the blind and amblyopic not only most of the benefits of an ordinary language, but in addition some quite special advantages of great educative value.

IV. Form of Esperanto teaching: Compulsory or not, Official or not

The problem of the form to be taken by the teaching of this international language in schools for the blind cannot be solved in the same way in all establishments. So far, the courses have usually been optional;

compulsory in certain places. The courses are often of a private nature, although occasionally they are included in the ordinary curriculum. Finally, the age, category and level of the pupils for whom the courses are intended vary tremendously.

An official and compulsory course may appear to be a heavy burden in some cases; on the other hand, an informal and purely free course may turn out to be quite inefficient. The happy medium would appear to be provided by an optional but official course, capable of giving those pupils who take it additional marks in the general classification and in the cultural exams.

But all these considerations are, of course, points of detail which the educators of each country and of each school can settle to the best of the particular circumstances and the interests of their pupils. The main thing is that those responsible should realize the educative, moral and material value offered by the international language to the blind and amblyopic and that they encourage and facilitate its teaching and utilization by every means.

V. Extension of Esperanto to the Blind and Amblyopic Adults

Nobody will deny the usefulness of this international language for adults suffering from full or partial blindness.

VI. Activities of the International League of Blind Esperantists

(Ligo Internacia de Blindaj Esperantistoj—LIBE.)

Despite many quite comprehensible difficulties, whether financial or occasionally political, LIBE now has official representatives in 26 countries of the 5 continents. This is a proof of the universality of the Esperantist Movement peculiar to the blind and amblyopic, and it is all the more convincing bearing in mind that numerous blind and amblyopic Esperantists live and work with enthusiasm in countries where LIBE has not yet been able to organise official representation.

But it is not only by correspondence that the blind and amblyopic are able, thanks to Esperanto, to acquire all sorts of information and experience; they can make use of the abundant culture facilities easily accessible to any blind or amblyopic Esperantist. Keeping to the main facts, it should be noted, for example, that there are more than 1,800 radio broadcasts in Esperanto each year from several transmitters throughout the world. Some Radio Warsaw programmes are even devoted specially to the blind.

6 Braille reviews are published at regular intervals in Esperanto, and also various periodicals on magnetic tape and bulletins in braille more or less regularly. The blind and amblyopic are even able to listen in to the sound recording of the main Esperantist reviews. Books of all sorts are lent by 21 braille libraries in Europe, and there are also works on magnetic tape. LIBE likewise sells several books at favourable prices.

An Esperanto Congress for the blind and amblyopic is organised each year to enable unsighted Esperantists to discuss their problems, pool information, compare their experiences but above all to establish personal contacts at private level. During these congresses, and in all relations, the language problem does not arise at all, since blind and

amblyopic persons from more than 20 countries are able to converse, without intermediary, in Esperanto.

VII. Considerations and General Conclusions

As is proved by the facts, Esperanto is for the blind and amblyopic an instrument which already offers invaluable advantages, but the latter would become even larger if the knowledge of that language were to be spread more widely throughout the world. Consequently, LIBE endeavours to convince the responsible authorities to furnish concrete aid through their moral and material support.

VIII. Activities of the Universal Esperanto Association

The aim of this international association, which is in consultative status with UNESCO, is to facilitate relations between mankind through Esperanto.

Following the United Nations appeal in connection with "Human Rights Year", this association strongly denounced linguistic discrimination in all its forms and in whatever country it might be practised. It brought to light the advantages small nations, whose language and hence culture are little or not widely known, may gain from the adoption of a language of communication completely new, thus protecting them from linguistic imperialism.

The UEA organizes a Universal Esperanto Congress every year, in a different country, in which some 2,000 delegates from 30 to 40 countries take part.

The Association seeks to draw the attention of international organizations and governments in all countries of the world to the necessity and urgency of adopting Esperanto, alongside national languages in the relations between peoples.

At its 58th Congress, held in 1973 in Belgrade, the conclusion was reached that for ease of cultural and human relations a supranational linguistic tool was necessary, i.e. the universal language of Dr. Zamenhof.

During this Congress, well-known members of the teaching profession presented papers and gave their views on the study of Esperanto, the main points of which are given below:

The great thing about Esperanto is that one generation would be enough, perhaps, for everyone to speak this language (and not only learned and educated men).

The introduction of Esperanto in schools, would enable everybody, in less than 30 years, to speak a common foreign language.

Esperanto, whatever pedagogics are employed, remains the easiest language for the average student to learn. In this regard, conclusive experiments have been made in certain countries with sighted pupils from 11 to 15, who had five lessons of Esperanto a week in a school year.

Esperanto has become a living language by the use its adepts have made of it for nearly a century.

Nowadays, 10,000 books out of the 30,000 published since 1887, translations or originals touching all spheres of thought, are on sale;

most of the masterpieces of writers all over the world have been translated into Esperanto; since 1945, literature in the original has made remarkable strides.

It is worth thinking over the statements and opinions which support the view expressed by some people that Esperanto is the Latin of democracy.

It should be noted that the annual Congress of the International League of Blind Esperantists coincides with that of the Universal Esperanto Association, which encourages contacts between the members of these two world organizations.

The first report relating to the teaching of Esperanto to the blind and visually impaired, which I presented to the General Assembly of the European Regional Committee of the World Council, held in July 1968 in London, was unanimously adopted by the delegates and observers of 23 countries; the report was written in English, German and French.

A similar report, rewritten and adapted, was distributed in English, Spanish and French to the participants at the International Conference of Educators of Blind Youth, now known as the International Council for the Education of the Visually Handicapped, which took place in July-August 1972 in Madrid; this report was not discussed. At the close of the Congress, the resolutions approved by the Assembly included a Resolution already approved by the ICEBY Congress held in 1962 in Hanover (No. 10).

IX. Recommendations

The preceding considerations lead me to ask you to adopt the following:

1. Considering that the teaching of Esperanto to the blind and visually impaired shows that it facilitates human contacts and develops cultural possibilities by promoting relations, without distinction, with victims of blindness and seriously visually handicapped persons all over the world;

2. Considering that to do this the blind and visually handicapped, in most countries, have the necessary means to devote themselves to this task and to achieve good results;

For these reasons, it is specially recommended:

- a. that institutes of special education of the blind and visually handicapped set up Esperanto courses, compulsory or optional, official or non-official, for their pupils; to this end they should draw the attention of their pupils at the beginning of each school year to the great intellectual value of Esperanto and to the facilities available for learning it; they should provide, if possible, modern textbooks, dictionaries, etc. . . . in order to encourage the study of this useful auxiliary language and consider, in schools where foreign languages are taught, the introduction of an Esperanto course as a preliminary study;

- b. that organizations of and for the visually handicapped do everything possible to give the blind and visually handicapped people over school age wishing to learn Esperanto, the equipment necessary to enable them to fulfil their desire.

Discussion

Considering that there is over 120 million Portuguese-speaking people, the Director of the Institute Benjamin Constant, on behalf of the Brazilian delegation and with the support of the Portuguese representative, requested that a Portuguese language representative be appointed to the next World Braille Committee. The wish was also expressed that the World Braille Committee join forces, under the World Council with the International Council of Educators.

Unco-ordinated work on the Braille Code for mathematics, physics and chemistry has been carried out in different countries. Efforts towards unification should be exercised. The All-Russia Society for the Blind has developed a new system of Braille scientific notation—at present in course of publication. The offer by the Head of the USSR delegation to hold in Moscow a meeting of experts in this field was gladly received.

PROFESSIONAL SESSION 8

Tuesday afternoon, August 13, 1974

UTILIZING ALL RESOURCES FOR PROVIDING AID TO DEVELOPING COUNTRIES

Chairman: J. F. Wilson, C.B.E.

Director, Royal Commonwealth Society for the Blind

Report of the Committee on Aid to Developing Countries,

(prepared by J. Jarvis, Executive Secretary, presented by Eric T. Boulter, RNIB.)

1. Origin and Formation of the Committee

On various occasions during the General Assembly of the World Council which took place in New Delhi in 1969, members expressed the view that the time had come for the World Council to concern itself more directly with the question of aid to developing countries. The Assembly responded favourably to this by amending its constitution so as to include a new category of international members and the allocation of seats for two of them, the American Foundation for Overseas Blind and the Royal Commonwealth Society for the Blind, on its new Executive. This body held its customary meeting at the conclusion of the Assembly at which it was resolved that the whole question of aid should be fully explored and warmly approved an offer from Mr. Eric T. Boulter, the Council's immediate past president, to undertake a preliminary survey among the donor countries so that up to date information could be collected about the amount of aid already being provided and about its distribution throughout the world. The survey, based on a simple questionnaire which Mr. Boulter despatched to donor countries in 1971 showed that in that year a wide variety of aid projects to a total value in excess of \$3 million had been undertaken in Africa, Asia and Latin America and that while this assistance had been predominantly supplied by organisations in the UK and the USA a number of projects had been financed by continental countries in Europe, by Japan and South Africa. In January 1972, Mr. Boulter convened an informal meeting in London at which the results of the survey were examined and at which future policy was considered. The main conclusion of that meeting was a recommendation that the Council's Executive should be asked to authorise the establishment of a Committee on Aid to Developing Countries as an additional standing committee of the Council. At its meeting in Moscow in May 1972, the Council unanimously endorsed this proposal and appointed a Committee consisting of Mr. Eric T. Boulter, Mr. Robert Barnett, Mr. Horst Geissler, M. André Nicolle, Mr. John Wilson and Mr. Boris Zimin. The Committee held three meetings, at Tashkent, USSR in May 1972; in Geneva in November 1972 and in Paris in May 1973. An indication of the great interest which the

President of the World Council takes in its work is proved by the fact that he and the Secretary General of the Council or, in one case, her Assistant Secretary, have attended all these meetings.

From the outset, the Committee needed two indispensable assurances:

1. That its administrative costs from the time of its formation until the General Assembly in Brazil could be met without any subsidy from the general funds of the Council which are fully stretched in meeting the needs of all the other commitments of the Council, and

2. That the essential administrative work of the Committee could be undertaken for the same period without imposing substantial additional work on the headquarters office of the Council. During the period covered by this report financial provision for the Committee's work has been adequately provided thanks to generous grants from the Council's two international members and subsidies in 1973 from 10 of the Council's member countries. During the same period the secretarial work of the Committee has been undertaken by Mr. John Jarvis, the Council's former Secretary General and by the staff of RCSB. The following paragraphs summarise the main work of the Committee.

Bangladesh

At its first meeting, the Aid Committee decided that one of its first tasks should be to mount a vigorous campaign designed to secure as much aid as possible from the maximum number of governmental and voluntary sources, both national and international, for one specific country whose needs were particularly urgent at the time and were likely to remain so for a number of years. Bangladesh was the obvious recipient to work for, since all its services had been completely disrupted by the recent war and it was therefore obliged to begin to rebuild almost from nothing its arrangements for the prevention of blindness and for the welfare of the blind. Accordingly the Committee addressed urgent appeals to all organisations likely to be in a position to take part in this effort and at the time of preparing this report the response, while by no means complete as yet, is most encouraging. When this appeal was despatched, RCSB had already embarked on an aid programme for Bangladesh of very considerable volume and variety and the close administrative link between the Aid Committee and RCSB has facilitated co-ordination.

In response to our appeal the All Russia Society for the Blind has already despatched to Bangladesh educational equipment for the blind to a total of 16,000 roubles, consisting of braille slates of various types, embossed maps and globes, braille watches and clocks, white canes and apparatus for the teaching of physics and mathematics and for instruction in woodwork and metalwork. At the time of writing it is now also considering the granting of substantial support towards the establishment of a national rehabilitation centre for the blind within the framework of the bi-lateral aid programme which already exists between the governments of the USSR and Bangladesh. We are hopeful that this assistance will not only take the form of providing the necessary basic equipment for the centre but also that our colleagues in the Soviet

Union may be willing to second expert personnel to enable the new centre to establish itself on sound administrative lines.

Substantial assistance from Scandinavia both from government and voluntary sources is also under active consideration and we hope for example that the Danish government may be willing as part of its help to projects in developing countries, to direct substantial funds towards the establishment of a rural training centre for the blind of Bangladesh. The National Association for the Blind in India has offered staff training facilities based on its long experience. The Swedish Government and that country's Association for the Blind, are actively interested in the provision of support costs for mobile eye clinics in Bangladesh and the Christoffel Mission which is based in the German Federal Republic has already supplied large numbers of spectacle frames for the use of cataract patients following their treatment in eye camps and a great deal of braille writing equipment for use in schools for the blind. It is now considering provision of substantial help in the establishment of an industrial training centre, both in the form of equipment and the seconding of specialist personnel. Lions International, through its Sight Conservation Programme, is mobilising funds for the financing of large numbers of cataract operations through the five mobile units established by RCSB. Operation Eyesight Universal of Canada is financing an ophthalmic unit. The Spanish National Organisation for the Blind has provided transport and other national agencies have indicated general support. The President of Bangladesh has asked that the thanks of the Government and people of Bangladesh be conveyed to WCWB and its constituent organisation.

The French-Speaking Countries of Africa

This region, which has until recently enjoyed only sporadic services in our field, most of them on a very small scale, has also received a great deal of attention from our Aid Committee and a number of countries are already experiencing the first results of our work which is enabling them to lay the foundations of what should eventually become national programmes for the education and training of the blind. At the time of writing, programmes in the Ivory Coast and in Mali are particularly promising. The project in the Ivory Coast was the subject of detailed examination by Mr. Geoffrey Salisbury of RCSB who visited that country early in 1973 and produced a comprehensive report which we hope will not only serve as a blueprint for the development of services in the Ivory Coast itself but will also provide valuable guidelines for the inception and growth of similar work in other countries in the region. The programme in Mali, to which reference has been made in a recent issue of the World Council's newsletter (June 1973) is, in the words of the Council's Secretary-General "a good example of harmonious co-operation among the various governmental and voluntary organizations which have contributed to its establishment". It owes its progress to French government scholarships which have enabled workers for the blind from Mali to receive specialised training in Paris. On their way home UNESCO provided them with an opportunity to relate their

experience to the African state in which they would be working permanently by awarding short-term fellowships to meet the cost of visits to Ghana and Nigeria. UNESCO also provided the basic equipment for the school for the blind in Mali which they are now establishing and the Mali Government assumed responsibility for the transport of this apparatus from France. A private individual purchased UNESCO Gift Coupons which have been used to meet part of the cost of publication in France of a series of five elementary school reading books specially designed for African pupils. The French National Committee for the Welfare of the Blind met the remainder of the printing costs and the Association Valentin Haüy, at whose headquarters the books were produced, supplied the plates free of charge. The French Government has since presented the new school with a minibus.

Co-operation with UNESCO

It was indeed a happy coincidence that the establishment of our Aid Committee should have taken place at a time when UNESCO were conducting a special campaign within the framework of their International Book Year in order to provide books for the blind in both braille and recorded form and to furnish the means of future production. The existence of our Aid Committee has enabled us to respond much more positively than we might otherwise have been able to do to requests from UNESCO for the evaluation of particular projects and for information concerning cases of particular priority. As a result of this close consultation which is now being regularly conducted on our side by the Council's Secretary General and on behalf of UNESCO by Mr. Sundberg, who is in charge of their programme for special education, substantial assistance has been provided to a wide variety of projects in many countries throughout the developing world. A great deal of this has been possible thanks to the proceeds of a gala concert which Sammy Davis Jnr. generously donated to "Books for the Blind". It has been possible, for example, to assist from this source the development in Cyprus of six braille and tape libraries in a number of cities in that country by providing substantial stocks of braille so that each library could be furnished with basic stocks of books during the first year of its operation. The specific allocation of UNESCO Gift Coupons to projects in our field is a further and most valuable aspect of the "Books for the Blind" campaign. Donations of coupons have been received from a variety of sources, notably from UNESCO associations in Japan and in the Netherlands and these have been used to support projects in a number of countries in Asia and in Africa, including India, Indonesia, Sri Lanka and Tanzania. The campaign is to be conducted in 1974 and in the light of our experience of its early working potential, donors of coupons will be offered more factual information about specific projects in the hope that this may encourage a greater number of them to contribute coupons to the project of their choice.

Co-operation with UNICEF

The establishment of our Aid Committee also provided the means of ensuring greater co-operation with UNICEF. Hitherto this had been

mainly limited to the international members of the World Council but when it became apparent that a substantial attack on blindness from malnutrition was being planned in El Salvador, the Committee immediately approached our colleagues in Spain with a most encouraging result that they now jointly are responsible with AFOB and UNICEF for the funding of this programme. Detailed reference will be made in the report of the Prevention of Blindness Committee to massive programmes against xerophthalmia undertaken by UNICEF in co-operation with member organizations of WCWB in Bangladesh, India and Indonesia.

The Present Situation and Future Projects

As we review the present situation there is no doubt that our new Aid Committee has provided the Council with useful machinery for assessing the extent to which aid is already being directed to work for the blind and the prevention of blindness throughout the developing world. It has been possible, both at meetings of the Committee and with the help of continuing correspondence between those meetings, for all of us to be much more fully aware than before of the detailed work of the Council's international members and of those of our member countries which already operate their own bi-lateral aid programmes. It has also been possible for us to become acquainted with similar work conducted under the auspices of the UN and its agencies and of a number of national governments. There can be few of us who were not surprised and gratified to know the already considerable extent of these efforts. This should give no grounds for complacency for as the work of our Committee has developed, an immense range of need has been revealed which far exceeds anything so far accomplished. At least, however, we are now in possession of much more reliable information than before regarding the sources from which future assistance might reasonably be expected to come. It is now for the General Assembly and for the new Executive Committee which it will elect to decide what changes need to be made in order that work maybe still more effective in the future. At the 4th meeting of the Aid Committee to be held in Stockholm on 25th March, proposals for the future operation of the Committee's work will be formulated for the consideration of the Brazil Assembly.

Signed John Wilson
Chairman
John Jarvis
Executive Secretary

Item 3 of the Minutes of the Aid Committee meeting held in Stockholm on 25th March, read as follows:

"Members were unanimous in recommending that the Committee should continue in being and all paid tribute to the success of its work to date. At the same time it was felt that it should have new officers from August 1974 and the question of administrative responsibility would need to be considered. Members agreed that every

attempt should be made to involve the Chairmen of regional committees of WCWB more closely in the work of the Committee. For geographical reasons it was appreciated that they would be unlikely to be able to attend all meetings of the Committee, but it hoped that each of them might be able to be present when matters concerning his region were receiving particular attention."

UNESCO'S ROLE IN PROMOTING EDUCATIONAL, SCIENTIFIC AND CULTURAL ACTIVITIES FOR THE BLIND IN THE DEVELOPING WORLD

by Nils-Ivar Sundberg

Unesco's Programme of Special Education for Handicapped Children and Young People

With the passage of years education of the handicapped has been taking an increasingly important place in the work of Unesco. The vastness of the problem and the need for international co-operation to get to grips with it have become progressively clearer with the publication of data on the number of handicapped in the world.

It is now estimated that on earth there are about 400,000,000 handicapped people, that is to say nearly the combined population of the United States and the USSR. Most of these handicapped people are uneducated and unskilled, but the work of Unesco to help educate them and improve their lives has been growing over the years.

Unesco, with comparatively small funds at its disposal, is making a world-wide impact on the problem. One of its main objectives has been to convince the nations that education of the handicapped is not merely an ethical duty but that it pays. For instance, in the United States it is estimated that every dollar paid for rehabilitation gives a return of 35 dollars. The cost of rehabilitation is usually repaid by the taxes of the rehabilitated person within ten years.

In Central America disabled persons living in remote agricultural communities were brought to the capital and trained in such jobs as hairdressing, tailoring, woodwork and radio-repairing. When they returned to their villages they usually earned three or four times what they would have obtained had they been able-bodied agricultural workers.

Unesco began shortly after it was founded in 1946 to grapple with the problem of educating the millions of innocent victims of World War II. It appreciated the need for special education not only for the blind, the deaf, the maimed and the mentally retarded but also for the countless children whose nervous system had been shattered by the war. During these early years Unesco published a series of studies for the guidance of educators in all countries on the national and international measures needed to face the challenge.

Unesco gave particular attention to international co-operation in teaching the blind. It is estimated that on earth there are 15,000,000 to 16,000,000 blind people. Shortly after its foundation it decided to promote a survey of problems aimed at establishing world Braille uniformity. It obtained the services as consultant of Sir Clutha Mackenzie, of New Zealand, an indefatigable worker for the blind who had himself lost his sight during World War I.

His goal was to produce a universally acceptable plan for the application of Braille to all languages, thus fulfilling the hopes of Louis Braille, the blind French professor, who in 1829 invented his alphabet of raised dots for finger-reading. Louis Braille was convinced that his method could be applied to any language, but since there was no international body at that time to achieve world-wide uniformity, a chaos of dissimilar Braille prints developed in the various countries over the years.

As a "Unesco Courier" article pointed out in March 1952, "almost from the start, enthusiasts of the Braille idea in many countries began juggling the dots around in different combinations. Soon the same pattern of six dots came to be used to express different letters not only in different languages but even in the same language.

"In Great Britain, for example, the Bible had already been printed in no fewer than five systems by 1868, and that year the British and Foreign Blind Association (now the Royal National Institute for the Blind) decided in favour of the original Braille. In the United States, three arrangements came into use. One group adopted French Braille, as Britain had done. Another modified many of the signs on the principle of the fewest dots to the most frequently recurring letters. A third group turned the axis of the Braille rectangle from the vertical to the horizontal.

"Only in 1932 did an agreement between the United Kingdom and the United States fix "Standard English Braille" as the contracted or abbreviated form for everyday use throughout the English-speaking world.

"Similar divergent systems introduced in German, modern Greek and Hebrew Brailles also yielded in due time to a return to the original French.

"But variations existed in Braille used in Spain and Portugal and the different Latin American countries. Because of the added factor of varied scripts and the absence of any recognized symbols for letter-sounds not used in the Latin alphabet, Asian and African language Braille systems were even more erratic in those parts of the world.

"These were the circumstances which in 1949 led Unesco to take up the question of a single universal script for the blind."

In 1954 Unesco published in English, French and Spanish a standard work by Sir Clutha Mackenzie entitled "World Braille Usage". It was a landmark for the blind of the world. In the words of Helen Keller, the American deaf-blind heroine who wrote the preface, it "lifted Braille from a jungle of punctographic codes to a universal medium". The possibility of producing a new work outlining the latest research and thinking on this subject is now being studied.

In addition, in 1952 Unesco created the World Braille Council. The activities of the Council, based upon the resolution of the Advisory Committee, should be to act in an advisory capacity on the interpretation and application of Braille principles, to coordinate future Braille developments, to advise on such Braille problems as might be referred to it from time to time and to act as a centre for the collation and exchange of information on Braille.

The wider aspects of Unesco's work on the education of the handicapped began to take more concrete form as of 1966. The General Conference of Unesco that year unanimously adopted a resolution which in a few clear sentences stressed the need to promote collaboration among educational research institutions in studying the special problems of the handicapped.

It emphasized the necessity to exchange information internationally, to establish educational research institutions and to continue to publish widely all information on different educational systems for the handicapped.

A special education programme was launched by Unesco in 1968. Since then, Unesco has been in liaison with other international and also national bodies working for the handicapped. It is carrying out a global programme for the publication of studies on the education of the blind, the deaf, the physically impaired and the mentally deficient. It is promoting co-operation among nations by sending out specialists and advisers on the education of the handicapped, by granting fellowships for teacher-training and by acting as the channel through which much needed equipment for the handicapped is provided. Since 1968 some 100 projects in special education have been launched in some 50 countries, often financed through voluntary contributions. More than half of these projects have concerned the education of the blind.

For instance, the Danish Government sponsored in 1968 a Unesco training seminar for teachers of the handicapped in African countries and in 1969 it did the same for Arab teachers of the blind. A year later a Unesco six weeks' course for teachers of the blind, financed partly by a gift of \$10,000 from Denmark, and partly by Tanzania, took place at Tabora in western Tanzania. The participants learned the best methods of teaching Braille in Swahili and English. The funds also made it possible to purchase Braille frames, typewriters and other equipment.

The Netherlands Government has given fellowships to four of the Tanzanian teachers to study the education of the blind and of the deaf in the Netherlands. Travel costs were met from Unesco's Special Education Voluntary Contribution Fund. Similar fellowships have been granted to administrators and teachers of the handicapped in some other countries of Africa and of Asia.

In response to requests from its member countries, Unesco has sent out consultants and experts to all parts of the world. For example a consultant mission was sent to Guatemala to advise on the development of special education for all kinds of handicapped children and young people in all Central American countries and Panama. A consultant was sent to Cuba to conduct training-courses for teachers of the partially sighted. A specialist from the United Kingdom, who had been working thirteen years in education of the blind in East Africa, was sent to Ethiopia to advise on the development of educational facilities for the blind in this country. A consultant mission is planned for Iran to assist in the development of their educational system for the blind. Equipment for reproduction of books to be used in schools for the blind has been provided to Turkey.

At present contributions for helping the handicapped are also being channelled to some 20 developing countries through Unesco's ingenious Gift Coupon Programme. Groups and institutions in these countries are purchasing with the coupons, teaching equipment from hard currency nations.

Gift coupons are a form of international cheque or money order issued by Unesco. Donors purchase them from Unesco headquarters in Paris and send them to institutions in other countries which use them for buying books and equipment for approved projects from suppliers in any part of the world. The suppliers send the coupons back to Unesco to have them converted into their own currency.

One of the Unesco Gift Coupon campaigns is contributing towards the purchase of the most modern equipment by the Escuela Normal de Especialización in Mexico City, which promotes training of teachers for the blind, the deaf and the physically or mentally handicapped. The teachers trained at the college will then train others to educate handicapped children throughout Latin America.

In 1972 Unesco set up a special "Books for the Blind" programme in co-operation with the World Council for the Welfare of the Blind. This led to one of the most successful fund-raising ventures for the handicapped. A gala performance jointly sponsored by Unesco and the United States National Commission for Unesco was given in Paris by the internationally famous American singer and entertainer Sammy Davis Jr. The \$35,000 raised by the benefit performance went to provide Braille books and educational material for the blind. Among the countries which have already benefited are Cyprus, Ghana, Iran, Mali, Mexico and the Syrian Arab Republic.

A study on the present situation and trends of research in the field of special education was issued by Unesco at the end of 1973. It contains contributions from Latin America—in particular Uruguay—from Sweden and the other Nordic countries, from USA and from USSR. Through this and other studies and surveys it has undertaken, Unesco has examined the situation of children and young people with some kind of handicap in different areas.

One study dealt with the legislation concerning special education (Unesco document ED/MD/8) and another with the present situation of special education in some 40 countries (ED/MD/16). Unesco has issued an International Directory on Special Education, listing ministries, departments, special services and institutions in 65 countries, and international and national organizations and associations in the field of special education. A selective bibliography of special education was published in 1970 and includes titles published on special education in English, French, German and Spanish-speaking countries, Nordic and East-European countries. It covers the organization of education for the handicapped, the training of their teachers, the prevention of handicaps and integration of vocational training into special education.

A booklet entitled "Education for **handicapped** children?" informs on the situation of the handicapped, and case studies on the present situation of special education in Cuba, Japan, Kenya and Sweden, are expected from the printers shortly.

A study on the terminology used in special education is under preparation and studies on the economic aspects of special education and on the access of young handicapped people to technical and vocational education are being developed.

Unesco has also taken action to make it easier to import educational, scientific and cultural materials. The General Conference of Unesco decided in 1948 to seek the adoption of an international agreement to overcome the increasingly formidable economic obstacles to the flow of ideas. The proposed agreement, although designed to promote education, science and culture, was in effect a tariff and trade instrument. Consequently, the first draft prepared by the Unesco Secretariat was submitted to a meeting of the contracting parties to the General Agreement on Tariffs and Trade, which produced a revised text deemed to be both technically sound and capable of wide acceptance.

The next step was the convening of a meeting of experts in 1950, attended by representatives of twenty-five Member States of Unesco. In the light of comments received from governments, the meeting prepared a further draft of the Agreement. This text was adopted unanimously by the Unesco General Conference at its fifth session, held in Florence, in July 1950.

This Agreement on the Importation of Educational, Scientific and Cultural Materials, commonly known since then as the Florence Agreement, was opened for signature on 22 November 1950 and entered into force on 21 May 1952, with the ratification of ten States.

The Agreement provides substantial facilities for the importation of the materials it covers. The materials covered are listed in five annexes to the Agreement. Annex E concerns Articles for the blind.

The central feature of the Agreement is exemption from customs duties. Charges upon importation, other than customs duties, are also waived.

Annex E on Articles for the blind reads as follows:

- “(i) Books, publications and documents of all kinds in raised characters for the blind.
- (ii) Other articles specially designed for the educational, scientific or cultural advancement of the blind, which are imported directly by institutions or organizations concerned with the welfare of the blind, approved by the competent authorities of the importing country for the purpose of duty-free entry of these types of articles.”

Several Unesco meetings have been held to review the Agreement, the latest in November 1973, in Geneva. The Florence Agreement has now been ratified or accepted by more than sixty States.

Education is mainly a national but also an international responsibility. This applies equally to special education for the handicapped. The serious situation of the world's handicapped is best shown by quoting U. Thant, then Secretary-General of the United Nations, when he spoke in New York on October 20, 1971:

“While so much has been done, so much more needs be done to help those 300 million disabled persons in the developing world in their struggle to overcome their handicaps and become active, useful members of society. If we break down to a per capita figure the total sum being spent by the United Nations system on rehabilitation, and include all other international support, governmental and voluntary, the figure amounts to only one cent for each disabled person, or a total annual expenditure of \$3 million on the disabled in the developing world.”

REHABILITATION, TRAINING AND EMPLOYMENT OPPORTUNITIES FOR THE BLIND IN ILO'S ASSISTANCE PROGRAMME TO DEVELOPING COUNTRIES

by Kurt Mueller, ILO Regional Adviser for Rehabilitation
in Latin America

In bringing greetings and good wishes from the Director-General of the ILO and the Director of the ILO Regional Office for the Americas, may I say how pleased I am to have this opportunity of representing the ILO at this Assembly in my capacity as Regional Vocational Rehabilitation Adviser for Latin America. One of my tasks is to assist and advise governments and voluntary organisations in this Region to organise and develop vocational rehabilitation training and employment services for disabled persons including the blind and to train the necessary staff.

As many of you know the ILO's basic policy of vocational rehabilitation is to be found in an official international instrument—ILO Recommendation 99 concerning Vocational Rehabilitation of the Disabled. With this Recommendation as a guideline the ILO, in close cooperation with other UN agencies and voluntary organisations, has provided expert services and other assistance in this field to more than 60 developing countries of the world over the past 20 years. In fact one of the first ILO technical assistance projects in the field of rehabilitation of the blind was carried out here in Sao Paulo from 1957-58 when Mr Albert Asenjo, a staff member of the American Foundation for Overseas Blind, who was seconded to the ILO, helped to develop rehabilitation centre and sheltered workshop services for the blind.

The ILO has always enjoyed a close and cordial relationship with the World Council for the Welfare of the Blind and its member organisations. Indeed, the impetus and practical support for much of the assistance we have provided to blind programmes in developing countries has come not only from the national organisations of the blind in the countries concerned, but also from other WCWB member organisations with international responsibility for the blind such as the American Foundation for Overseas Blind (AFOB) and the Royal Commonwealth Society for the Blind (RCSB). At this time, we are cooperating actively with the RCSB in the Caribbean area where one of our experts is helping to reorganise and develop vocational workshop programmes for the blind in seven island territories—Antigua, Dominica, Nevis, Grenada, Montserrat, St Lucia and St Vincent. As a result of the expert's work it is hoped to introduce more profitable small scale industry and handicraft type of products into the blind workshops on these islands and to improve marketing techniques. Plans are already well advanced for holding a training course for the blind workshop

managers in Port of Spain, Trinidad, later this year. Our experience shows, however, it is very difficult indeed to develop a viable, self-supporting workshop solely for the blind in small islands where production possibilities are limited. It may well be that better results could be achieved in some cases by having a multi-purpose workshop which caters for the blind and sighted disabled together with an associated homeworkers' scheme.

In Latin America itself, we have worked very closely with the American Foundation for Overseas Blind in several countries of the region. For example our respective experts have worked together in advising and assisting with the development of vocational rehabilitation services for blind children and adults in Argentina. The basic planning and groundwork for a pilot rehabilitation centre in Buenos Aires was completed over a two-year period (1971/72) and the AFOB is now providing additional expertise and equipment.

Our experts have also been active in other regions of the world. From 1963 to 1967 an ILO expert assisted with the development of the National Training Centre for the Blind at Dehra Dun in northern India. His assignment was particularly concerned with improving and expanding training facilities at the Centre. The whole system of mobility training assessment and evaluation was re-organised; pre-vocational tests were prepared for blind children at a neighbouring blind school; light engineering training was introduced and a sheltered sub-contract workshop established.

An ILO assisted project in Addis Ababa, Ethiopia, provides an interesting example of a viable small scale industry workshop where blind and sighted disabled workers work effectively and happily together manufacturing umbrellas. This project which is now under Ethiopian management, produces all Ethiopia's requirements for this product and export orders have also been obtained. It is interesting to note that a modular form of training was introduced from the outset (i.e. the disabled workers were trained on specific processes and were fully competent in 6-8 weeks). This workshop now employs 400 disabled people; annual profits are in the region of 250,000 dollars; a new workshop for the production of dry cell batteries was opened recently, again with a labour force composed entirely of disabled persons.

An ILO expert is currently assisting with the development of vocational rehabilitation programmes for the blind in the Syrian Arab Republic. His main task is to organise vocational rehabilitation and training workshops for the blind, prepare suitable syllabi for training courses embracing commercial, textile, general industrial (packing, assembling, cane and leather work), metal and woodwork trades. Associated sheltered workshops will offer employment to the blind in leather work, brush and broom making and cardboard box making. The expert will also help to organise training courses for workshop instructors, develop a placement service and help with the over-all co-ordination of medical, vocational and social services for blind persons. Provision is also made for six of the specialised staff in the blind programme to receive training in Europe under fellowship arrangements. Equipment will also be provided for the workshop programme.

Most of the assistance provided by the ILO to blind programmes has for various reasons been concentrated in urban areas (i.e. at Government's request or for lack of resources to permit extension of services). We are fully aware, however, of the need to extend services to blind persons in rural areas of developing countries. Unless such action is taken, the blind will continue to leave their rural surroundings to seek a livelihood (often through begging) in the large cities. Our experience in Africa has shown that rehabilitation of the rural disabled must concentrate on training in activities of daily living and also mobility in the case of the blind. Training in the traditional sense for one particular trade is generally unrealistic and a disabled person needs to be taught a variety of skills if he is to make a useful contribution to the family group or rural community in which he lives. With this in view, the aim should be to give the rural blind "all round" training in such activities as crop raising, poultry rearing, animal husbandry, hut making and repairs, tailoring, sandal making, etc., as well as courses in literacy and hygiene.

Apart from providing expert assistance, fellowships and equipment, the ILO has organised a series of six regional and inter-regional seminars and training courses for vocational rehabilitation personnel from developing countries with the generous assistance and support of the Danish International Development Agency (DANIDA). In all these courses, special attention has been paid to vocational rehabilitation of the blind with lecturers being provided by WCWB member organisations and specialists from the countries or regions in which the courses were organised. Further training courses are being planned over the next two years including a training course for sheltered workshop managers and a seminar for specialists working in the field of the blind and the deaf.

The ILO continues to receive many requests for assistance which cannot be met in full due to limited budgetary resources. Among the countries which have recently requested (or expressed interest in receiving) assistance with the development of vocational rehabilitation programmes for the blind, are the following:

Bangladesh, Ecuador, India, Madagascar and the Peoples Democratic Republic of Yemen.

Obviously there is scope for a much more intensive technical cooperation effort on the part of international bodies concerned.

In the field of research, the ILO has concentrated on both general and specific aspects of vocational rehabilitation of the disabled. The ILO "Manual on Selective Placement of the Disabled" includes examples of legislation aimed at facilitating the placement of blind persons. More recent publications include handbooks on "Adaptation of Jobs for the Disabled" (this includes photographs illustrating how machines, tools, equipment, work places etc., can be readily adapted to facilitate the placement of blind persons). The ILO has also been pleased to cooperate actively with the WCWB and the Government of Sweden in a survey on training and employment opportunities for the blind in industrialised countries.

Finally, I would like to bring to your notice what we consider to be an extremely important development in the field of vocational rehabilitation of the blind. I refer to the Documentation and Information Service on Vocational Rehabilitation and Employment of the Blind which the ILO initiated at the request of the President of WCWB on 1 January 1974. The Service is known as BLINDOC. It is centred in the Vocational Rehabilitation Section at ILO Headquarters in Geneva. Its main aim is to keep blind organisations throughout the world abreast of significant new developments and techniques associated with vocational guidance, assessment, training (including mobility training), vocational preparation and placement of the blind in open and sheltered employment.

Thanks to the assistance of the WCWB and the cooperation of its many member organisations around the world, the Vocational Rehabilitation Section is beginning to receive an increasing amount of literature on many aspects of the social, economic, vocational, psychological, and legal situation of blind persons. A growing collection of reference materials and a documentation service to a large number of widely dispersed information consumers requires an effective system of control as well as an effective document analysis and retrieval capability. It was decided, therefore, in principle, to establish a link with the computer based ISIS (Integrated Scientific Information Service) of the ILO Central Library and Documentation Branch. Measures are in hand to expand the existing ILO-ISIS list of descriptors by a number of specialised rehabilitation terms. Contact has also been made with several rehabilitation thesauri and descriptor lists, including that of the American Foundation for Overseas Blind document center on blind research throughout the world, that of the REHALIT Information Centre of Rehabilitation International at Heidelberg, and others. Eventually the ILO-BLINDOC will cooperate as fully as possible with other documentation centres and every effort will be made to build up collaboration for the exchange of document analyses, abstract translations and general information. Already discussions have been held with representatives of several disability documentation centres to prepare for such cooperation.

During the first three months of the BLINDOC programme, some 44 individual articles were prepared, translated and disseminated. Certain mailings involve full text articles from blind journals and other rehabilitation publications; others cover summaries of legislative aspects and technical assistance projects; a number of the articles are report abstracts and analytical summaries. Approximately half of the articles involved translation into French, English or Spanish. The texts are reproduced in offset and include a card type bibliographic index with full title and content summary. The present mailing list comprises approximately 140 blind organisations and blind centres.

Eventually there will be several types of document summaries for distribution including the computer produced abstract with a descriptor index as well as a more detailed comment abstract for special texts requiring extensive analysis. Document analyses will be chiefly in

English but may, depending upon available resources, be translated into other languages (mainly French and Spanish).

Steps have already been taken by means of a questionnaire to WCWB member organisations and other BLINDOC receivers to establish a detailed and regularly updated record of publications received by blind organisations. This will help to minimise duplication in document dissemination.

The ILO-BLINDOC documentation and information service can become an important tool in the promotion of vocational rehabilitation and reintegration of blind persons everywhere. With your continuing support we hope it will develop into a permanent service.

Finally, may I assure you that the ILO will continue to work closely with the WCWB and its member organisations in developing much needed vocational rehabilitation programmes for the blind. We realise, as you do, that a large majority of the world's 15 million blind persons are still denied the opportunity of work. It is up to us all, through determined and coordinated efforts, to ensure that the blind have access to and a share of the same basic human rights—including the right to work—as those enjoyed by the non-disabled in the community.

THE RESPONSIBILITIES OF RECIPIENT COUNTRIES

by Mr. H. Zaman, Secretary, Ministry of Labour & Social Welfare,
Government of the People's Republic of Bangladesh

INTRODUCTION

The need to help the blind has always been felt in developing countries as in more developed countries. The mode of offering this help has, however, differed. It is generally accepted that with due training and assistance the blind can also become productive and self-supporting. This concept is also gaining ground in the developing countries, though on a very limited scale yet.

The services available in the developing countries for the welfare of the blind are extremely inadequate and not based on an assessment of the actual need. They have generally originated from a feeling of sympathy towards the blind. Philanthropy has played the major role in the growth of such services. The very limited state-sponsored services have generally followed the model. Consequently, the number of beneficiaries remained extremely limited and the services received did not lead, in many cases, to gainful rehabilitation. The services exist more to give an expression of concern rather than an organization for the actual welfare of the blind.

Actually, a state of constraints on resources prevents the developing countries, even if they had the best of intentions, from taking any appreciable action in favour of the blind. They do not have the resources, trained manpower and appropriate organizations to undertake and carry out any sizeable programme for the benefit of the blind.

The developing countries are faced with the hard task of making judicious distribution of their proverbially scarce resources between the competing needs of immediate consumption and long-term development requirements. They do not succeed in meeting either of the needs adequately. In the development process the social sector and the rehabilitation of the disabled, including the blind, thus receive low priority. With the recent world-wide inflationary trends, the prices of food-grains, energy, other essential items and construction materials are going up rapidly. The developing countries have to import these items as other capital goods. The cost of development is thus beginning to prove prohibitive for them. Inability of these countries to meet the immediate needs, to provide jobs to a fast-growing labour force or build quickly a viable production base, the rising aspirations of the normal as well as the blind population which remain unsatisfied is making the situation only worse.

NEED FOR ASSISTANCE

Developing countries do not always have the resources to build up proper facilities for the welfare of the blind. They are dependent on technical and material assistance from the international community.

Such assistance will, on the one hand, enable them to take up such programmes as will utilize the already blind persons for productive purposes and prevent incidence of blindness.

The international community, especially the developed countries, may mobilize resources and organizational expertise for this purpose. This collaboration between the international organizations and the developed countries on the one hand and the developing countries on the other will not only help the blind to gain self-dependence and self-respect but the process will also promote international understanding and thus contribute to world peace and progress.

RESPONSIBILITIES

(i) Building of a strong and effective national organization

There should be a strong and effective national organization to look after the welfare of the blind in the recipient country. The organization should have branches all over the country so that the condition of the blind is known to the National Society. The head office of the National Society should be such in which donor countries will have confidence. The National Society should be able to coordinate the work of local branches and maintain good liaison with aid-giving countries.

Programmes for welfare of the blind may be undertaken both by Government and private agencies. The Government agencies should be concerned with the setting up of proper standards in the various fields concerned with welfare of the blind. The Government of recipient countries must coordinate the work of various agencies in such a way that they instead of being competitive and wasting their limited resources on the same programme or same clientele should be complementary, in order to get the maximum benefits out of limited investments.

(ii) Training of personnel

In order to initiate and undertake effective programmes for the welfare of the blind, recipient countries should have a corps of trained manpower. Persons should be trained in the areas of data collection and analysis, programme formulation and evaluation, programme operation and supervision, administration and cooperation. Persons trained for a particular job should invariably be assigned to work in their respective areas of competence. Training can be arranged through a programme of technical assistance both at home and abroad.

(iii) Developing proper attitude towards blind

The recipient countries should make conscious and systematic efforts to change a general negative attitude towards the blind. The blind people in developing countries have traditionally been treated as a group of persons deserving pity only and thus fit to live on charity. Unfortunately, the feeling has been mutual among the blind as well as the non-blind. The attitude continues to persist in general. It has got to be changed. The average people must realise that the blind "have the same rights and responsibilities as others for work and should not have

to rely on others for support. They must be thought of as a part of the general population entitled to the same considerations as others" rather than as an isolated group deserving second-class treatment.

It often happens that changing the attitude of the average person is easier than it is with those in positions of resource allocation and decision-making authority. The efforts to change the community attitude and to encourage action in favour of the blind should be done through publicity and education directed towards both the general population as well as the planners and decision makers.

(iv) Data collection and problem assessment

No educative and motivational programme can be effective unless it is backed by empirical data. One of the prime responsibilities of the recipient countries should therefore be to collect data about their blind population. In many cases the census figures have not proved very reliable due to faulty definition used or other reasons. Where possible, necessary information should however be collected through the census organization. A recent estimate made in a regional seminar (ILO/DANIDA, Teheran, 74) lumps all disabled persons, physical, mental and others together to constitute 10% of the population in the Asian and other regions of the world. This does not actually indicate the size of the visually handicapped population or the variations of their handicaps.

Data is required, firstly to determine the extent and ramifications of the problem and secondly to decide on the type and size of the programmes required. They also help to make projections about the future needs and programme expansions and variations. They provide the basis for seeking and determining the quantum of national and international assistance as well. The recipient countries should therefore collect and compile data which should indicate the size and growth rate of blind population, their age structure, extent of dependency, living conditions, professions/occupations and sources of income/support, fitness for receiving training etc. Collateral data like training, employment and housing facilities in industrial or other geographical areas of the country should also be gathered and maintained.

Data on blind persons can also be collected and maintained through a regular system of registration and classification. In short, for any effective programme planning it is a pre-condition to have systematically organized data on the blind population.

(v) Selection of programme area

As stated earlier the resource constraints, both national and international, do not permit undertaking at a time any programme for the benefit of the entire blind population of a country. The programme selection would thus have to be made very carefully. It must have dual objectives. The initial programmes should be selected in such areas of operation as would have a higher assurance of success and a demonstration impact which would induce others to join or organize such programmes.

(vi) Formulation of programme

Once the operational area is decided, programmes should be formulated carefully. The programme range should include training, adaptation, rehabilitation, follow-up and ultimate integration of the blind in the general socio-economic structure of the society. The recipient countries have to ensure that planning of services for the welfare of the blind is carried out as an integral part of the overall developmental process in the total perspective of the socio-economic needs of the country. The programme should be so planned as would permit absorption of the persons immediately after completion of training in gainful employment and thus rehabilitation. A backlog of trained but unemployed persons can bring a sense of disaffection and frustration with negative implications both for the programme and social tranquillity.

(vii) Building infrastructure

With the development of manpower and organization the recipient countries must work towards building up a service infrastructure, sets of reference materials and other assorted facilities required for production of physical aids and other accessories needed by the blind population in general.

(viii) Building self-sustaining projects

Experience indicates that in many a case projects built with international assistance are given up when the aid is withdrawn. Closing down the services, once started, does immense harm to the existing as well as the potential clientele. It creates disaffection among others as well about the utility of such projects and thus serves to discourage interested groups from taking the initiative in establishing such other new projects.

It is therefore imperative that while undertaking any project with international assistance the recipient countries must ensure that they are planned and organized in such a manner so that they can generate their own source of support and thus continue to provide the planned services on a self-sustaining basis after the aid flow is stopped.

It must be remembered that international assistance cannot and should not be expected to organize and finance programmes in the recipient countries for all time to come. The objective of such assistance is only to help the recipient countries to get the needed services organized and started and assist in the improvement of such services from time to time. The responsibility rests with the recipient country to initiate, operate and expand the services according to its capability and requirements of its people in general as well as the special groups.

(ix) Prevention

Blind persons already constitute a great sizeable segment of population in the developing countries, most of which at least in Asia are already over-populated. The incidence of blindness is very high in these countries due to very low levels of living and consequent malnutrition and poor health conditions. The general population in these countries is growing very fast. Due to the poor living conditions the yearly

addition to the blind population is also very large. In some cases it is quite alarming. The foremost responsibility of developing countries should therefore be to take immediate action in the area of preventing the incidence of blindness. The recipient countries can utilize international assistance in this area more effectively and with long lasting results. But this preventive work relating to the causes of blindness cannot be done through agencies dealing with problems of blind alone. It will require intersectoral cooperation, among Health Administration, child welfare agencies (national and international), public relations, community development projects etc. Massive doses of vitamin A to young children is one way of preventing the incidence of blindness. A programme in this line has been in operation in Bangladesh with assistance coming from UNICEF, WHO, etc.

(x) Coordination

Services intended for the welfare of the blind or prevention of blindness cannot bring forth the desired results if they are conducted on a single dimension. This will in fact defeat the whole purpose of integrating the blind with the general society. There is therefore an absolute need for coordination at all stages, like data collection, problem determination, programme formulation, execution, rehabilitation, evaluation and follow-up. The coordination should be effected both at intra- and inter-sectoral levels as well as in the perspective of overall national development objectives and plans. The recipient countries must ensure that aid received for the welfare of the blind is not treated as assistance in isolation. It must be built into the national plans but used specifically for the benefit of the blind in the framework of national plans.

(xi) Integration of blind with rest of the population

The developing countries receiving international assistance may examine the possibility of introducing legislation, or other suitable administrative measures for integration of blind with the rest of the population in the field of education, employment, etc. There should be some school where both the sighted and the blind children can receive their education, and the feeling of isolation among the blind is gradually removed.

It is true that the developing countries have a large unemployed labour force with more people entering the market every year, but there is no corresponding creation of jobs. This is also true in the case of the blind as well. Every government makes attempts to provide jobs to its increasing labour force, and it should also make correspondingly similar efforts to find employment for its blind. The fact that the blind also constitute part of the labour force as well as of the general population must be clearly recognized.

(xii) Responsibility towards donors

One of the prime responsibilities of recipient countries is to help the donor countries/agencies understand the social and cultural conditions of the country, administrative mechanism, community and Government attitude towards the blind, growth process and particulars of the

existing services. They should also be provided with facts relating to the size and variations of the problem, the types of programmes the recipient countries are capable of undertaking immediately and in a phased manner. The assistance agreed upon must relate to the problem and needs in their total perspective. The services to be organized with such assistance must have both preventive, curative, manpower training, motivational and organization building aspects. It sometimes happens that assistance offered does not really lead to any productive purpose or use. The recipient countries should therefore help the aid giving agencies in deciding what type of assistance will actually bring in lasting benefits. This they can also determine, if necessary, with technical assistance from donor countries/agencies.

(xiii) Receiving aid for specific purposes

Recipient countries must avoid seeking or accepting aid just for the sake of receiving aid. The assistance must relate to specific projects. Adaptations and improvements on a scientific basis are certainly welcome. It is therefore necessary that facts about the problem, objective assessment of the needs and capability, immediate and long-term, of the recipient countries should be the sole basis in determining the type and quantum of aid. Subjectivity of thinking on the part of donor or recipient countries should be avoided in all cases and under all circumstances.

(xiv) Relationship

The relationship between the donor country/agency and the recipient countries should be based on mutual understanding and respect. This mutuality is required in the best interest of the programmes and the beneficiaries. It also provides scope for further cooperation in future. One-way relationship and interference from donor agencies in the internal affairs of recipient countries can only cause harm to the projects and future of the programmes. It is therefore necessary to keep the interest of the blind beneficiaries supreme in the minds of both the donor and the recipient countries.

The relationship between the donor and the recipients should therefore be one of appreciation of the needs by the donor and of the assistance by the recipient. It should be based on the principle of interdependence.

(xv) Contribution of recipient countries

The recipient countries should in all cases avoid depending solely on the donor for assistance in developing a project(s). Their involvement and concern must find expression in the form of some inputs, however small they may be, towards the agreed projects.

The recipient countries should also maintain case record and growth history of internationally assisted projects. Since these projects provide scope for experiments, their results backed by systematically recorded data can be used to plan or replicate similar projects in other needy countries, after making local adaptations. The donor and recipient can

thus help each other and other needy countries in the areas of developing service standards, technical progress, advanced strategies and newer concepts and ideas.

The mutual understanding and assistance as indicated can thus help create a better world for the blind where they can live in peace and happiness.

DISCUSSION

Dr. Charles Hedkvist, President of the World Council, paid homage to the work done by the United Nations and its specialized agencies for the 400 million handicapped people throughout the world in spite of scanty resources and limited staff. He expressed the wish that higher priorities be assigned to programmes benefitting such categories of citizens. Strongly supported by Mrs. Dorina de Gouvêa Nowill, Brazil, he felt that associations of the blind, alongside other organizations for the handicapped, should try and convince their national governments to give more resources to the UN, specialized agencies for that purpose. Resolutions aiming at improving the life of the visually handicapped presented to the governing bodies of international governmental organizations ought to receive active support at the national level, thanks to the pressure put by WCWB national delegations on their respective governments when they are requested to do so. It is important said Mrs. de Gouvêa Nowill that every effort be made to supply the data needed for the establishment of good programmes for the blind.

Delegates called attention to the problem of job placement which requires the support of governments. Much needs to be done to provide for agricultural training of blind people in the rural areas of the Third World.

Solutions for international cooperation must be found to solve the problems of the blind in developed and developing countries. Owing to the drought prevailing in countries south of Sahara, the situation of the blind in those regions is tragic and International assistance should be provided to the local authorities.

PROFESSIONAL SESSION 9

Wednesday morning, August 14, 1974

RELATIONSHIPS

Chairman: Profa. Dorina de Gouvêa Nowill, Brazil

RELATIONSHIPS BETWEEN THE BLIND AND THE SIGHTED

by Hideyuki Iwashi, Chief Director,
Nippon Lighthouse for the Blind

The theme of the Fifth General Assembly of the World Council is "Resources and Relationships for the Improvement of Services for the Blind" and the special theme given to me is "Relationships between the Blind and the Sighted".

There can be various kinds of relationships between the blind and the sighted: relationships between the blind and his country, the blind and society, the blind and industry, the blind and individuals or the family, etc. As an Asian, I would like to take up the problems related to this area.

In the Asian Continent, the vast area which occupies one-fifth of the world with the highest density of population and two-thirds of the entire blind population in the world, the problem of relationships is a serious one. There are so many unfavourable conditions, such as the vast area, enormous population, exhaustion and poverty, ignorance, illiteracy, natural calamities, war, etc. In such situations, no one can make a correct and clear answer as to what relationships can be set up and how to go about it. Nevertheless, it is an urgent and important problem. I have repeated over and over again that we should try to put the spirit of the following proverb into practice: "Heaven Helps Those Who Help Themselves."

Lively power or energy will never come out of the man who, with his hands in his pockets, just looks up at the sky, meditating and doing nothing. If relationships mean just a simple encounter with a person on the street and having a chat with him, then no action is necessary. But if the blind want to obtain employment in society, act as useful members and be leaders in society, there must be good relationships through which they can gain more and better understanding and recognition of blindness from individuals, society enterprises and the country as a whole.

Efforts have been made to this end by the blind and workers for the blind in Asia during past years, but it was by a small number of people on a limited scale. Such a whisper or small movement is apt to be neglected or lost in the huge current of public information. It is necessary to make more efforts to produce such relationships with the

sighted by using every possible means and organizations. Of course, we should not think of just the quantity; the quality of the relationships must be favourable and creative.

In Asia there have been few great successes of the blind, few great workers for the blind, few academic and qualitative studies about blindness. The well-balanced quality and quantity must be kept in the hands of the blind and the workers for the blind and they should take the initiative in organizing systematic and scientific relationships. Such relationships should not be a mere incidental idea, or simply customs, but they must be well planned with an aim and a philosophy, so that they can be more effective and influential.

It will be necessary to have a firm financial basis, a good planning group, instructive technical magazines, close cooperation with the press and a supervizing committee to ensure the implementation of these long-term plans. The times when the blind isolated themselves, when a country looked to her own interests or a region thought of its benefit only, are over. Just as all the resources and materials on the earth should be distributed all round the world, the problem of relationships should be tackled by all of us by means of all possible knowledge, communication and machinery. And it will also be one of the questions the WCWB must take up in the next quinquennium.

THE IMPORTANCE OF COOPERATION WITH ORGANIZATIONS OF/FOR OTHER GROUPS OF HANDICAPPED

by Mr. Arne Husveg, Norway

A prominent feature of modern society is the increasing importance of organizations and organized groups. In addition to the traditional political and professional organizations, strong groups have emerged sharing common ideals, interests and aims—women's organizations, youth organizations, and organizations of the handicapped.

Whether a country be rich or poor, the distribution and spending of its resources will always be a matter of priorities. A society's general and specific attitudes and policies on economic, social and cultural matters—and thus its priorities—will in the main be decided by the relative strength and influence of the organized groups within it. It follows that organizations with similar or parallel aims, or organizations which at least share some attitudes and interests, may enter into bilateral or multi-lateral cooperation on specific issues or on a more permanent basis.

Cooperation may be defined as a pooling of resources of economy, manpower, experience and political weight. Cooperation between organizations may comprise any one or all of these factors.

I have never believed in the "Common Denominator"—with capital letters—for all handicaps. I consider blindness to be special because the majority of impressions from the outside are transmitted through sight, and the loss of vision therefore radically affects a person's functional level and his possibilities in practically every facet of life—education, employment, mobility and daily living.

I am also an ardent opponent of certain modern trends, at least in some Scandinavian countries, towards promoting the integration of the blind and partially sighted with other groups of handicapped. In my opinion this is contrary to the concept of true integration which should be to make the blind and partially sighted part of normal society, or rather, of society as a whole, including both handicapped and non-handicapped persons.

However, having made these reservations, I firmly believe in cooperation between organizations of and for the different groups of handicapped on specific issues and in areas of general social policy where there are identical or similar attitudes and aims.

Furthermore, I believe in the basic solidarity between all groups of handicapped, which makes it a solemn duty to give mutual support even in matters which may benefit only one group. On the same principle no organization of handicapped should shortsightedly and selfishly promote policies which may lead to the deterioration of another group's situation.

Realism is the essence of all fruitful cooperation. To be too ambitious may be more harmful than to be too cautious. When establishing permanent arrangements for cooperation between different organizations of handicapped, and deciding on their organizational structure, administration, working routines, programmes and aims, one should never lose sight of the factors which will restrict the scope of such cooperation. These factors are:

- (a) The needs of the different groups are often very specific. There may even—luckily on minor matters as a rule—be conflicting interests.
- (b) The economic foundation and organizational maturity differs greatly from one organization to another.
- (c) There are great differences in basic social-political attitudes. At one end of the spectrum you will find organizations which consider that all welfare for the handicapped should be the responsibility of society and which in the main look upon themselves as socio-political pressure groups. At the other end you will find pure welfare organizations which may even resent the State “meddling” in their affairs.

I may add that the Norwegian blind organization is to be found somewhere in the middle of this spectrum, as an organization which promotes and runs institutions and activities for the blind and partially sighted, but at the same time recognises its important role as a social-political fighting organization working towards increased involvement and responsibility on the part of society in all aspects of welfare for the blind.

The first tentative steps towards cooperation between the different organizations of handicapped in Norway were taken in the late 1940s. However, it is only fair to say that it took ten years or more before this new association of organizations began to make any real impact. An association of independent organizations must work on the principle of unanimity. This has inevitably led to a certain “watering down” of policies and attitudes. But real achievement has been made in certain fields.

The Norwegian Association of Handicap Organizations is at the moment comprised of organizations representing the deaf, persons with reduced hearing, the rheumatics, the polio victims, persons with cerebral palsy, the mentally handicapped, persons suffering from asthma and allergy, persons with handicaps resulting from heart or lung disease, and the blind organization. Until recently the Organization of the Physically Disabled was also a member.

Until now, the Association of Handicap Organizations in Norway has mainly concentrated its efforts in the fields of employment and pension policy. We can claim substantial success in these endeavours. The Norwegian national pension system, which also incorporates all kinds of economic assistance and social benefits for the handicapped, including social rehabilitation and technical aids, gives a clear indication of what can be achieved when the organizations of the handicapped combine their strength and influence on common points of policy.

The State and its agencies has long recognized the advantages of association of handicap organizations. In Norway it is a recognized principle that the groups involved should be represented on public boards and committees dealing with problems affecting these groups. However, it goes without saying that on broad issues such as employment and pension policy, it is a practical impossibility to include representatives of every single group involved. It simplifies procedure when there is an Association of Handicap Organizations which can represent all these member organizations on such committees and boards. When necessary, representatives of a member organization can be called in for consultation on specific issues.

The Norwegian Association of Handicap Organizations now seems to be on the point of attaining an old and important objective. Already it is standing procedure for the Ministry of Social Affairs to call in representatives of the association for consultations in connection with the annual revision of pensions. Rather than take part in annual consultations, the Association would like to be recognized as a partner in negotiations regarding pensions and related issues.

In Sweden and Denmark there are organs of cooperation between the handicap organizations corresponding to the Norwegian Association. They are organized mainly on the same lines, and it is fair to say that in some cases they have achieved even more impressive results than has been the case in Norway. Under the leadership of H. C. Seierup, the Danish handicap organizations acted as a concerted political force, and made a massive contribution towards the creation of one of the world's most advanced systems of pensions, service and social welfare.

One somewhat disturbing trend in the field of cooperation between the handicap organizations should be noted. I have briefly mentioned the the Organization of Physically Disabled recently withdrew from the Norwegian Association. The same thing took place some time ago in Sweden. The obvious aim was to build a new constellation of organizations representing groups with impaired limb and body movement (rheumatics, polio, C.P. and so on]. This attempt has failed both in Sweden and in Norway. Indeed, the solidarity between the remaining member organizations has grown stronger and the work of the Association more efficient. Although remaining a loose association of member organizations, the Norwegian Handicap Association now considers establishing a permanent secretariat with its own administrative leader and full-time experts to carry out studies and make calculations which will support the attitudes and proposals for social policy adopted and promoted by the Association.

In this paper I have only briefly touched on the detailed work and achievements of the associations of handicap organizations in Scandinavia, but have concentrated rather on the problems, principles and possibilities involved. No system is readily transferable from one country to another. However, the general principles should be of interest and something of value can always be gained from the experience of others.

Summing up, I am of the firm opinion that a great deal can be achieved through cooperation between organizations of the handicapped, and that permanent associations should be established for this purpose. The cooperation must, however, be based on the firm rock of realism, promoting a partnership of independent associates working with mutual respect and solidarity.

RELATIONSHIPS BETWEEN GOVERNMENTAL AND VOLUNTARY AGENCIES

by Suresh C. Ahuja, Executive Officer

The National Association for the Blind, India

The need in present times for good and harmonious relationships between governmental and voluntary agencies working in the field of blind welfare cannot be overstressed. In the 18th and 19th centuries, and to some extent in the early part of the 20th century too, the responsibility of Government was restricted to a large extent to the maintenance of law and order. The provision of social services and social security were not generally regarded as functions of Government. The care of the sick, the poor, the aged, the disabled and handicapped members of a family was regarded as the responsibility of the family itself. By and large, families were able to discharge these responsibilities albeit unwillingly and inadequately at times.

With the rapid expansion of industry, communication, transport and the scientific and technological progress in the 20th century, there have been considerable stresses and strains on the family and the life-styles of individuals. The joint or extended family has in most countries given way to the nuclear family. There has been an exodus from the rural areas to the urban areas and particularly to the metropolitan cities making the very act of survival for the underprivileged even more difficult.

Voluntary work for the blind on an organized basis commenced almost two hundred years ago. Initially it was a case of providing food and shelter to the indigent blind. Gradually however the voluntary agencies took up the work of educating blind children. Also simple handicrafts and hand-work requiring little or no skill were introduced in homes for the indigent blind with the objective of keeping the inmates usefully occupied.

Relationships between the governments and the voluntary agencies were simple and uncomplicated up to this point. Governments left the voluntary agencies alone to perform their charitable duties and occasionally gave them small grants of money. These grants were given and received as acts of generosity.

With changing economic and social conditions and the increasing pressures of 20th century life, new philosophies developed regarding the role and functions of Government. Today there would be scarcely any government in the world which would not regard the provision of social services and social security as one of its major functions. Today, whether it be a communist, capitalist, socialist or democratic government, social welfare services and social security are accepted as the responsibility of the State and are provided by the government of every country to a varying degree depending upon its economic resources.

Voluntary agencies too have grown in number and in the complexity of the nature of services provided by them. We then have the situation today where there can be found throughout the world a multiplicity of governmental and voluntary agencies working for the welfare of the blind.

In some countries there appears to have developed a clear cut distinction between the role of governmental and voluntary agencies. For example in the UK the Government is responsible for the employment of the blind. In most of the western countries education of the blind is the responsibility of the State and, even where there are some privately managed schools providing education to blind children, they receive grants on a per capita basis for the State.

In many countries there is no clear distinction and we find both governmental and voluntary agencies carrying out similar functions. This is particularly true of the developing countries where due to a lack of or inadequacy of services provided by voluntary agencies, the State is stepping in to fill the gap. In India, for example, there are government schools for the blind and schools managed by voluntary agencies. Again, employment services are provided both by governmental and voluntary agencies.

In some countries Governments are providing increased financial assistance and grants to voluntary agencies. Governments are also using the services of the voluntary organizations as agents on their behalf to establish and manage specific programmes. In India for example, regional braille presses and teacher training programmes are being administered by voluntary agencies on behalf of the Government of India.

In the Socialist Democracies, while there is complete state ownership and state responsibility, separate and to a large extent autonomous Commissions/Societies have been established to organize and manage services for the welfare of the blind. In the USSR, the All Russia Society for the Blind organizes and manages most of the services. Similarly, in the German Democratic Republic the Blinden-und-Sehgeschwachen-Verband der DDR is the organization that is responsible for the planning and co-ordination of services for the blind.

With this multiplicity and complexity of services provided for the welfare of the blind both by governmental and voluntary agencies in the different countries, it is difficult to define clearly the spheres of work that should be undertaken by Government on the one hand and voluntary agencies on the other. However, we can suggest norms for the different roles that can be undertaken by them. It must be noted that the pattern will necessarily vary from country to country depending upon the political and economic situation prevailing, and also on the capacity and resilience of the voluntary agencies to shoulder responsibility. The ultimate objective, however, must be to provide a complete and useful network of services for the welfare of the blind whilst maintaining a close relationship of mutual co-operation.

Broadly defined, the role of Government in any country with regard to the provision of services for the welfare of the blind should include:

1. Policy framing and planning of services on a national scale.
2. Provision of basic services.
3. Conducting research and filling in of gaps in existing services.
4. Providing financial assistance and encouragement to voluntary agencies.
5. Continual review, direction, control and inspection of welfare services.

Policy-Framing and Planning

Undoubtedly the most important function governments can perform in the field of blind welfare is to provide leadership in the planning of a comprehensive set-up of services. It is Government's duty to ensure that all citizens including the blind receive education, have the opportunity to work, are provided with medical care and where necessary are given disability pensions.

It is essential that the government department concerned with the welfare of the blind formulates policies and draws up plans covering the total needs of the blind population. The method of implementation would also need to be delineated, e.g. should all services for the blind—education, training, employment, after-care—be lumped together and be the concern of a department of social welfare or should education of the blind be a part of the over-all responsibility of the department of education, placement of the blind the responsibility of the department of labour and so on?

In the planning of these services the government will need the help of experts in the field. Government departments are usually manned by civil servants subject to frequent transfers. In many of the developing countries social welfare and social security are not given the priority they deserve and as a consequence, the staff allocated to social welfare departments is not always the most capable. It therefore becomes even more necessary that, in the planning of social welfare and social security, governments should utilize the services of experts. This can be achieved by appointing experts for special assignments, by forming advisory committees and by frequent consultation.

Basic Services

It is also the Government's duty to ensure that its blind citizens have the same rights and privileges as the able-bodied and, what is more, that efforts are made to ensure that what is constitutionally provided is in fact actually available. Most countries now provide for free and compulsory education and the right to work. In western countries, governments either provide educational facilities for blind children in State-run schools for the blind or in integrated programmes in the public school system. Alternatively they provide 100% financial assistance to the schools for the blind managed by voluntary agencies. Similarly, in many western countries, governments, as part of their regular employment services, operate programmes for the employment of the visually handicapped. In the developing countries free and compulsory education is an ideal yet to be achieved even for normal children. The education of blind children lags even further behind. In

India, for example, while free education is now available up to the primary level to 70% of normal children not even 1% of blind children are receiving any form of education. The situation is similar when we consider the question of employment.

Progress can be accelerated if the blind are permitted to avail themselves of the existing services for the able-bodied without any insistence on their using the limited special services provided for them.

The provision of pensions to the unemployable and unemployed blind is again a function of Government. No voluntary agencies anywhere in the world could shoulder such a massive responsibility.

Research and New Programmes

An important function of Government would be to conduct research into new avenues of education, employment and training of the blind as also production of equipment, particularly new equipment now becoming available to the blind as a result of scientific advances. In the developing countries it is increasingly apparent that even the provision of basic equipment like Braille books, Braille writers and the like must be undertaken by Government. These objectives can be achieved either by Government setting up its own units or by appointing voluntary agencies as agents on its behalf.

The provision of services for the minority groups within the larger group of the visually handicapped, e.g. the multiple handicapped including the deaf-blind, is another function that needs to be performed by Government. Again a group that has received hardly any attention in the developing countries is the large and indeterminate one of the partially sighted. In most countries, particularly in the developing countries, they fall between two stools. Partially sighted children are unable to cope with the programme in regular schools without special help, which is usually not available, and they are generally not admitted to schools for the blind. Partially sighted adults are not able to secure jobs through regular employment services as they cannot fulfil medical requirements and they are not entitled to utilize the special employment services for the handicapped. Governments must therefore think in terms of providing services for this group of handicapped persons.

To achieve all this, governments could enact comprehensive legislation covering the needs of the blind and the provisions required to be made to meet these needs. They must also work out a reliable means of collecting statistical data regarding the blind population, if not full scale registration.

Financial Help and Encouragement to Voluntary Agencies

In most countries voluntary agencies are responsible for the establishment, development and maintenance of a wide variety of services for the blind. In fact, work for the blind owes its existence to the efforts of individuals and groups interested in the welfare of the blind. Religious orders and missions have also contributed a great deal to the development of schools, homes and other services for the welfare of the blind. It is the duty of Government to encourage and support these agencies.

Voluntary agencies depend mainly on public donations. While support from the public has been generous in the past, most agencies

find that donations today do not suffice and so they have to depend increasingly on governmental grants. This is not surprising in the present context of increasing costs and inflation.

Governments could follow the somewhat tempting path of taking over the work of voluntary agencies and running the services departmentally. This would be unwise as they would lose not only the limited inflow of public charity but also the expertise. Voluntary agencies should therefore be encouraged to develop and grow and liberal financial assistance should be given to them in order that they can not only maintain their services at existing levels, but expand them further.

Review, Direction, Control and Inspection

While governments may establish or cause to be established services for the welfare of the blind, there is always a danger that some programmes can become static or even deteriorate without a continual process of review and direction. Voluntary agencies too at times tend to become complacent and therefore there is need for an effective mechanism of control and inspection. Control and inspection are necessary, not merely for financial matters but also for qualitative standards required to be maintained in programmes for the welfare of the blind. This applies equally to institutions and services managed by voluntary and governmental agencies.

It is not easy to define the role of voluntary agencies. Historically, almost all services for the blind have been initiated by them. Traditionally, they have assumed responsibilities for managing various services, sometimes more than they can actually cope with. The broad areas in which voluntary agencies can make a significant contribution are:

1. As pressure groups for the enactment of legislation and for the formulation and implementation of governmental policies and programmes relating to the blind.
2. The initiation and development of new programmes.
3. The creation of public awareness regarding the blind.
4. The provision of personalized services.

Pressure Groups

To a large extent, the fact that governments throughout the world have taken up work for the blind and in some cases have enacted legislation relating to the blind, is due to the continued pressure maintained by voluntary agencies. Voluntary agencies have been quick to realize that without governmental action the blind would remain underprivileged members of the community indefinitely. By constant and intensive pressure on government, the voluntary agencies have achieved results far greater than they could have ever hoped for by their own efforts alone. A good example of this is the wide range of concessions currently available to the blind in many countries—income-tax, travel, postal, etc., and the provision of liberal disability pensions. This pressure can best be exercised by a recognized and accepted national voluntary agency.

New Programmes

Voluntary agencies have often been the first to experiment with new projects and services for the blind. Governments are known to have taken up projects on a national scale only after pilot projects established by voluntary agencies have proved successful. Many examples of this can be found in India. Placement of the blind in open employment was initiated by the Indian National Association for the Blind and this was followed by the establishment of special employment offices for the handicapped throughout the country by the government. The first All-India Training Course for Teachers of the Blind was established jointly by the National Association for the Blind and the National Christian Council and this was followed by the establishment of Regional Teachers' Training Courses by the Government of India.

Voluntary agencies can thus be pioneers in the establishment and promotion of new projects, new services and new ideologies. When governments are reluctant to start projects or services which have not yet gained acceptance, or where the need is limited, voluntary agencies can initiate experimental and pilot programmes. A good example of this would be a programme for the education of deaf-blind children on a limited scale in countries where none exists. Or again, the establishment of special recording services for students and other groups of readers where the requirements would be limited. Similarly, voluntary agencies could start services for the placement of the educated blind—a minority group in the blind population of any country.

Public Awareness

Voluntary agencies are best suited for the task of educating the public, arousing public interest and drawing forth constructive public sympathy for the cause of the blind. By constantly focusing attention on the abilities of the blind through all available media, voluntary agencies can promote their placement in open industry and help to bring about their total integration in the community. Voluntary agencies are also able to draw forth fairly substantial voluntary donations and contributions which would otherwise remain unutilized. And perhaps even more important is the fact that many interested and talented persons can be attracted to work in the field.

Personalized Service

There are a number of personalized services which can be provided only by volunteers and voluntary agencies, e.g. guides and readers. Recreational programmes are also best organized by groups of volunteers. There is a host of such personalized and, if I may use the term, ancillary services which by their very nature need to be provided by interested and sympathetic volunteers and voluntary agencies.

Relationships

Clearly then, as work for the blind has developed over the past two centuries, the roles of governmental and voluntary agencies are both supplementary and complementary. On occasions their functions

overlap. Together they attempt to provide comprehensive services for the welfare of the blind. In the foreseeable future we can look forward to even further expansion in both sectors. At points it is likely that their services will be fused. At times they will operate parallel services. Certain services may be taken over entirely by Government depending upon changing philosophies and also where massive financial inputs are required. By and large both governmental and voluntary agencies are here to stay for a long time to come.

Not only is this true on the national scene but also on the international scene. Whilst voluntary international agencies like the World Council for the Welfare of the Blind and the International Federation of the Blind exist to promote blind welfare, international governmental agencies like the UN, Unesco, WHO, ILO, etc. are becoming increasingly involved in the establishment of new programmes.

With this situation, it is essential that relationships between governmental and voluntary agencies be close and harmonious. It is necessary that the relations be in the nature of mutual co-operation and partnership and of interdependence rather than of rivalry and jealousy.

In many countries relationships between governmental and voluntary agencies have developed on healthy lines. This is particularly true of India and I believe the lead given by India can be followed to the advantage of the blind by most developing countries. In India, government schools for the blind exist side by side with private schools for the blind. Private schools receive generous grants from the government. While the government has established special employment offices for the physically handicapped including the blind, voluntary agencies operate placement services in a number of cities.

The Government of India utilizes the services of voluntary agencies as agents on its behalf, e.g., Regional Teachers' Training Courses established by the Government of India are based at and administered by schools for the blind managed by voluntary agencies. Two of the four Regional Braille Presses in India are run by voluntary agencies on behalf of the government.

The National Association for the Blind and other institutions receive maintenance and other grants from the Central and State Governments and local authorities.

Most recognized schools for the blind receive per capita grants from the State Government concerned. Grants for buildings and equipment are also available additionally from the Union Government. Grants for holding of conferences and seminars within India and for attendance at international conferences are sanctioned on a limited scale.

The Government of India and the State Governments set up, from time to time, advisory and special committees which always include representatives of the voluntary agencies. Representatives of the National Association for the Blind have regularly sat on committees set up to formulate plans and programmes for the physically handicapped included in the National Five-Year Plans. Delegations to international conferences and for study and observation tours sponsored by government or voluntary agencies invariably include representatives of both sectors.

Through constant interchange of communication the government and the voluntary agencies maintain a continuous dialogue and thereby achieve mutual consultation leading to commonality of objectives.

In conclusion, I believe it is important that both groups—governmental and voluntary—should always work together towards an improvement of the services they provide for the betterment of the blind, thus retaining an identity of purpose. Neither sector can fully serve the blind without the help of the other. Co-operation and partnership are the keys to a good, cordial, and mutually beneficial relationship.

THE RELATIONSHIP BETWEEN ORGANISATIONS OF AND FOR THE BLIND

by Rienzi Alagiyawanna, Sri Lanka

The blind people enjoy their rights only in countries where they fulfil their duties. One of the most important duties is to appreciate the value of making a common cause with fellow blind people and to be ready to join together for organized action. The consequences of war and the social and economic changes have made the blind people in the developed nations conscious of the urgent need for united action, to help themselves, to present their needs directly through their own elected representatives. The fundamental requirement is that the blind are rightly understood by the public and private agencies that work for their welfare and society in general. The tradition of the organized movement of the blind is to emphasize the right view of blindness and the actual problems of the blind. Society has to realize that the problems of blind people is the lack of education, training and employment and not the fact that they are blind. Blindness is not a calamity. The removal of the real calamity lies in the hands of the law-makers and the administrators of public programmes for the welfare of the blind. It is not sufficiently realized that the real calamity of blind people lies in the discriminatory laws and administrative policies of public and private agencies. If agencies for the blind are willing to abandon this myopic attitude on the part of the state and the public, the basic hinderances to our movement will be removed. Some public and private agencies for the welfare of the blind do not have the right view nor the right understanding of the problems of the blind and dissipate their energy and funds in merely expanding the services for the blind, that always increase in quantity as the number of helpless blind people grows. Some welfare agencies do not strive sufficiently to remove the real obstacles in the path of blind people, who wish and are capable of helping themselves. The abolition of discriminatory laws and the enactment of favourable ones is one of the most effective ways of helping the blind to help themselves. This is a field of action in which the voice of the organized blind will be more effective than the attempts of some welfare agencies that act on their behalf. Some policies and programmes for the welfare of the blind, tend to keep the blind people in perpetual dependence on private charity and the welfare activities of private agencies. No wonder that only the blind are interested in changing these outmoded policies and out-of-date programmes.

Right views regarding blindness, right understanding of the problems of the blind and right action to resolve these problems, these are the corner-stones of the self-help movement of the blind. The blind have a duty to unite and speak for themselves. They have a duty to present their case through their own elected representatives and strive for legislative action wherever needed. They have a duty to cooperate with

the administration directly and help in framing policies and programs for their rehabilitation. The relation between the organisations will improve only to the extent that the welfare agencies, who have been first in the service of the blind admit that the blind are able to help themselves and assist them to do so. The fact that the blind people organize themselves, is an expression of their normalcy, their ability to discuss their own problems and find solutions. Their desire to bear responsibility should be actively encouraged by both public and private agencies. The inclusion of a few blind individuals in the ranks of such agencies will be considered as a token of acceptance.

The organizations of the blind know best the full significance and impelling urgency of the ideals of integration. The organizations of the blind can have no attachment to outmoded institutions and their supporting theories, no commitment to paternalistic philosophy of charity and goodwill.

Some welfare agencies fail to see that the exercise of rights implies a series of corresponding duties, that will enrich the lives of all blind people and their communities. Their relation to the organisations of the blind cannot be harmonious till they learn to appreciate these rights as the democratic heritage of all citizens, whether sighted or blind. The right relation between organizations of and for the blind will develop only when the welfare agencies recognize these rights and actively support the blind in achieving them.

The World Council for the Blind could help to bridge the gap between these organizations by encouraging the self-help organizations to play their full part both at the national and the international level.

Discussion

Several delegates advocating a closer relationship with other groups of handicapped, Dr. Charles Hedkvist reminded the Assembly that WCWB was a member of CWOIH (Council of World Organizations interested in the Handicapped). Regular assemblies and interagency meetings of the UN and its specialized agencies, at which the CWOIH was officially represented, provided an opportunity for an exchange of experience and for the planning of future programmes for the handicapped.

A frank discussion ensued on the right of the blind to speak for themselves. The blind do not want to become isolated but strive to organize themselves in order to make their needs and aspirations better known to official spheres and to the public at large.

It was pointed out that most large organizations engaged in work for the blind included blind persons amongst their leaders and executives. In the employment field, full integration with the sighted was profitably sought whenever training and skills permitted. The good results obtained in the USSR, where blind persons after proper training, earn their living alongside with sighted workers, were emphasized.

President Charles Hedkvist, supported by several delegates, called attention to the necessity of trying to find a way for effective co-operation between the International Federation of the Blind and the World Council for the Welfare of the Blind. "I believe", he said "that a joint committee ought to be set up to study the means for the two organizations to unite their efforts at the international level."

Dr. Hedkvist's proposal met with the unanimous approval of the Assembly.

SUPPLEMENTARY PAPERS

BRAILLE PROJECT

by David V. Charlesworth

Clarke & Smith Research Laboratories

Clarke & Smith have since 1954, been engaged in the design and manufacture of equipment for blind and handicapped people. A major contribution in this field is our Talking Book for the Blind System which is used in many countries throughout the world to provide recreational and study library services. However, Clarke & Smith's Research and Development Engineers have felt the need to produce equipment for the job enhancement opportunities for blind people. This paper is presented to inform you about our latest developments in this sphere of activity, which we call our Braille Project.

Braille is at present and, as far as one can see in the future, the only accepted vehicle to make large amounts of reading matter available to blind people. Talking Books are a valuable method of conveying information, but are not a substitute for reading material. Conventional Braille has a number of problems. It is bulky and costly to produce. It is about twenty times larger than corresponding inkprint. A major objective of the project is to reduce the bulk and cost of Braille. It started with the idea of recording Braille books on magnetic tape cassettes in binary coded form for subsequent reproduction on a display consisting of a line of Braille characters formed by dots raised by electro-magnetic attraction corresponding to the recorded information.

The cassette chosen for storing the information was the Clarke & Smith type used for Talking Books. It was necessary to distinguish between Talking Book cassettes and those containing Braille information, so it was decided to call them Braille Cassettes. The Braille Cassette is loaded with sufficient magnetic recording tape to allow the equivalent of one inkprint novel to be stored on each recorded track using existing digital recording techniques. By utilising two recorded tracks it is possible to store two complete inkprint novels, or one larger than average text on one Braille Cassette.

It was essential to provide means for making Braille Cassettes and two methods have been developed. In the first method, the input is a Perkins Brailler keyboard coupled to a Display and Braille Cassette Recorder via suitable electronic circuits. Here conventional text is translated into Grade II by the Braillist and the lines of Braille are presented on the Display to allow verification before transfer to the Braille Cassette Recorder. The second method has a teletype input coupled to a computer and Braille Cassette Recorder. Here, alphanumeric Text is typed in, and the conversion into Braille accomplished by the computer for transfer to the Braille Cassette Recorder. For our

experiments, the conversion was into Grade I, but this is not a problem, as more than one computer programme exists for translation into Grade II.

The master Braille Cassette produced by either method, can be copied on whatever scale is required on adapted Talking Book Dupli-cators in which the electronic circuits and heads are converted for digital information. This technology has exciting possibilities. For example, some inkprint books are produced employing computer techniques. It may well become feasible to take computer compositor tapes and translate them directly into Grade II Braille with suitable programmes for subsequent production of Braille Cassettes.

An essential part of a Braille Cassette system is the provision of a place-finding index, and at least four possible methods exist, two with audio and two with Braille presentation. Each consists of additional recorded tracks which contain the index information. The simplest is an arbitrary audio index providing signals at timed intervals throughout the length of tape. The second is a meaningful audio index providing page number and chapter heading announcements corresponding to the text. The third and fourth correspond to the audio methods, except that presentation is in Braille on the Display. The index information is presented during fast search of the Braille Cassette, allowing with the aid of a contents page, location of any particular section of the text. Systems for producing the Braille index on Master Cassettes have been worked out, but they have yet to be evaluated.

A great deal of the time spent on the project has been devoted to the Display itself, which at present consists of a line of characters formed by dots raised by electro-magnetic attraction. The number of characters can be varied according to the application from eight to a practical limit of seventy-two. The six dot matrix of the individual characters and their pitch is in accordance with the standard employed in the United States of America. However, the shape, height and materials chosen for the individual dots has been determined to provide very clear characters with minimum reader fatigue. The Display is the heart of the system and intensive research and development continues to be carried out to achieve practical manufacturing and economical production costs.

The Display has other applications apart from the reproduction of Braille Cassettes. It is these other applications that I will tell you about now, because our first product releases will be in this field. There can be little doubt that a very satisfactory area of employment for blind people is in computer and communications situations. Many ingenious devices exist to enable blind people to overcome the problem of not being able to read inkprint, such as converted line printers and Braille embossers. These devices in themselves create their own problems such as operating time, cost and bulk of stationery. As a result, the blind programmer for example, does not always enjoy the same service in the computer situation as a sighted person. Clarke & Smith have, in collaboration with the National Research and Development Corporation of the United Kingdom, initiated a major research and development programme covering a range of equipments for computer and communications applications.

The first of these is a Computer Terminal, which is a direct replacement for a Teletype or similar terminal in which the blind operator has full control of data entry and output. As in the case of the Teletype, there is a plug-in option for paper tape punch and reader. In addition, provision exists to connect a Braille Cassette Recorder to recall data to the Display, overcoming the difficulty of being without hard copy. In this way a complete record of all information is stored in a convenient form for as long as it is required. The terminal will function in exactly the same way as a Teletype except that the output will be in Braille, presented on the Display.

The second is an Information Retrieval Unit which is a direct replacement for a Visual Display Unit. The main difference between this and the Terminal is that the Terminal is intended for programming applications: the Retrieval Unit is for data retrieval. Eighty lines of data are stored in the unit's memory, and transfer to and from the computer is at high speed, and the computer spends less time servicing the system. One line of information is present on the Display and the user is provided with keys to obtain the next or preceding line as required. The mode of operation as far as the computer is concerned, is similar to that used to service any Visual Display Unit also attached to the computer. Code converter options are provided to translate the data into Grade I Braille.

The third item is the Braille Display Unit which will interface with existing suitable Typewriters or Teletypes, allowing incoming information to be read and outgoing data to be verified. Provision exists for connection of a Braille Cassette Recorder for data recall to the Display and storage of data for as long as it is required. Plug-in interface encoders will convert the various communication codes to Grade I Braille, or the alternative standard computer code. The Display Unit will also be suitable for interfacing with a Telex machine.

We believe that these equipments will open up many new job opportunities for blind people in the following fields:

- | | |
|----------------------------|--|
| 1. Secretarial: | Typewriter keyboard and Braille output, providing sighted and Braille copy. |
| 2. Computing: | Computer programming.
Computer assisted instruction.
Computer operating. |
| 3. Information Retrieval: | Data banks for Lawyers, Tax Specialists, Medical and Health Services, Libraries, Material and Stock Control. |
| 4. Information Processing: | Radio Announcers, News Editors, Station Operators, Telex Operators, Stock Market Ticker Tape Operators. |
| 5. Automation: | Numerical Control Equipment Operators, Plant Equipment Automation Operators. |

- 6. Laboratories: Chemical Lab. Analysis.
 Medical/Health Analysis.
 Biological Lab. Analysis.
- 7. Education: Braille Teaching.
 Note Taking.
 Computer Assisted Instruction.
- 8. Other Applications Telephone Exchanges, Calculators and
 Include: Reading Machines.

PROGRESS IN THE CLARKE & SMITH TALKING BOOK SYSTEM

Read by Mr. C. M. A. Bathurst

Talking Books for the Blind and Handicapped have been a major activity of the Clarke & Smith Organization for more than 20 years, and our developments have advanced through the gramophones record talking book to cover the modern magnetic tape systems.

Our work over these years has been closely associated with the Royal National Institute for the Blind in the United Kingdom, and in addition we should like to acknowledge the help given by our many friends in other countries, which include Australia, Canada, Finland, New Zealand and Spain.

Our aim has always been to produce Talking Book equipment which is durable and simple to operate. This is particularly important for elderly blind people.

In 1955 we first promoted our special gramophone record player which provided such features as automatic cleaning of the LP Stylus, and also eliminated the necessity for the blind reader to touch the pick-up arm. Then we developed the Mark I tape machine, followed by the Mark II, Mark III and finally the Mark IV-1/4" tape cassette. This provides a useful playing time of 12/13 hours, which was designed to take the majority of recorded books on one Clarke & Smith cassette.

Following the resolution adopted by the Technical Committee of the World Council for the Welfare of the Blind in Belgrade in 1967, many countries adopted the Clarke & Smith 6-track, 15/16 i.p.s. tape system, and there has been some measure of exchange of talking books between these countries. With standardisation of basic machines, it has been possible to provide equipment of practically the same cost to the small countries, starting with only say, 50 playback machines, as to those countries ordering thousands of machines. The great majority of talking books are used for recreation purposes by the elderly blind, and our system generally using only one cassette per title is most suitable for this section, of the population.

The RNIB are servicing over 40,000 members from their libraries with many recorded titles ranging from the classics, historical books, fiction, text books etc., with an average playing time of 12 hours, per title.

The latest development in the Clarke & Smith System is the production of a low noise mains powered reproducer utilizing integrated circuit techniques.

We believe the Clark & Smith Mark IV Talking Book system is the most cost effective system available in the world for talking books.

To support this claim, we present the following comparisons which are based on statistics available from the principal Talking Book users:

Clarke & Smith Talking Book System

1. The scrap rate due to spillage is negligible since the tape can be easily shortened or replaced.
2. The Estimated Life of a reproducers is at least 10 years when in daily use.
3. Usually one cassette per title.
4. Standard indexing System
5. The standard machine is simple to use, with a minimum number of controls.
6. The Clarke & Smith cassettes can only be used on the Clarke & Smith Reproducers.
7. The Clarke & Smith system provides copyright protection.

Other Talking Book Systems

There is a high defect rate due to tape damage and spillage.

Three years is the maximum life even for the more expensive machines when used regularly.

Requires several cassettes per title.

Indexing facility is only available on special machines.

Other machines are more difficult to use particularly by the elderly blind.

Other cassettes can be used on standard domestic machines with consequent high loss due to pilferage.

Generally no copyright protection.

Developments

The Clarke & Smith Talking Book System is in use in some 26 countries throughout the world, and the type "A" High Speed Copier and the smaller type "B" Copier, have now been supplied to most of these countries.

The Company as part of its development programme, continues research in the duplicating field, and the type "C" and "D" Copiers are our latest products, simultaneously duplicating two Channels for Talking Newspapers and Magazines, and eight channels for Central Libraries at sixteen times normal speed. These machines produce talking books faster and cheaper, and with a higher fidelity than our earlier Copiers.

The organizations for the blind in many countries supply most of their talking book machines to members for recreational or leisure reading. An increasing production of their master studio and library production effort and expenditure is now being devoted to student library membership. Many countries are concentrating a large percentage of their efforts towards the vocational and student needs of their younger and more intellectual members. This demands recording facilities for correspondence, lectures, etc, and students are also more likely to purchase other software programmes privately. Much of this software is now available on compact cassettes, which were developed concurrently with our Mark IV system, and there are many suppliers of machines to use this software. The playing times of these commercial cassettes is, however, restricted even where 1/2 mil. tape is used.

In order to adapt these available compact cassettes to the needs of the blind, it was decided to develop a special machine using the Clarke &

Smith Talking Book speed of 15/16 i.p.s., and 4 recorded tracks with an indexing facility.

All these facilities are highly desirable for those blind persons for study and vocational purposes, and meetings held with groups representing students and other users of the RNIB library, confirm this.

The machine which has been developed by Clarke & Smith and is being demonstrated, in the exhibition incorporates 4 tracks and variable speed, fast forward and fast re-wind mechanical transport control with the optional facility when using these modes to listen to indexed signals. In addition to serving the needs of the blind students attending lectures etc., users will be able to record their own index signals through the microphone, and can place an accurate position-finding bleep by pressing a tone button.

Clarke and Smith continue to carry out Research and Development on the Mark IV System to assist those countries who use our System for their blind readers. For others who wish to use a compact cassette system we shall shortly go into production with a machine which we believe will meet all their requirements.

BUSINESS SESSION 3

Thursday, August 15, 1974

Chairman: Dr. Charles Hedkvist, President of WCWB

PRESENTATION AND ADOPTION OF CONSTITUTIONAL AMENDMENTS

The Assembly discussed and adopted the following amendments to the Council's Constitution, in addition to redrafting part of the text:

Article III.

The addition of a new category of membership to be known as Sponsoring Member. The category "Representative Member" was changed to "National Member".

Article IV.

The Council decided that voting at elections, when there is more than one candidate, shall be by secret ballot.

Article V.

The Council adopted a recommendation to the effect that: "The travel and maintenance costs of members and the guides of blind members attending interim meetings of the Executive Committee shall be met in whole or in part for such members as may wish to apply."

Article VI.

The number of officers shall include the Immediate Past President and also the Secretary General if he or she is serving in an honorary capacity.

The present text of the WCWB Constitution, after the incorporation of all adopted amendments, now reads as follows:

ARTICLE I

NAME AND LOCATION

Section I—NAME. Under the name of the WORLD COUNCIL FOR THE WELFARE OF THE BLIND (ORGANISATION MONDIALE POUR LA PROMOTION SOCIALE DES AVEUGLES) an association is hereby formed in accordance with the law of 1st July, 1901, of the French Republic, between the representatives of organizations of and for the blind.

Section 2—LOCATION. The headquarters of the Council shall be located in Paris, France. It may be transferred to such place as may be decided by the General Assembly.

Section 3—DURATION. Its duration shall be unlimited.

ARTICLE II

PURPOSES AND FUNCTION

Section I—PURPOSES. The purposes of the Council shall be international cooperation between organizations working for the welfare of the blind and prevention of blindness throughout the world.

Section 2—FUNCTION. To achieve its aims the Council shall, in particular, work towards the:

- a) provision for the creation and development of national organizations of and for the blind;
- b) direction of efforts for the introduction of minimum standards for the welfare of the blind in all parts of the world and the improvement of such standards;
- c) provision for necessary technical and material aid to be given to national organizations of and for the blind upon their request and after consultation with the governments concerned when appropriate;
- d) provision for and encouragement of the exchange of information and experience between organizations of and for the blind;
- e) encouragement and carrying out of studies in the field of service to the blind and the prevention of blindness;
- f) collection and dissemination of information on the conditions of the blind in different countries;
- g) collaboration with the UN and its specialized agencies, as well as with other international organizations, with a view to ameliorating the problems of blindness;
- h) taking any other measures necessary to achieve the purposes of the Council.

ARTICLE III

MEMBERSHIP

Section 1—CLASSES. Membership of the Council shall be open to nationals of all countries of the world and shall consist of:

- a) National Members
- b) International Members
- c) Honorary Life Members
- d) Associate Members
- e) Sponsoring Members

Section 2—NATIONAL MEMBERS. National Members shall be those members nominated by each country participating in the Council, always providing that their nominations shall be supported by resolution of their national nominating body and that these must be in the hands of the Secretary General at least three months prior to the General Assembly. Except in the case of illness or other emergency, delegates to the General Assembly shall consist of those persons whose names appear on the Secretary General's list three months prior to the opening of the General Assembly.

Countries having a general population of less than twenty million shall be entitled to name two National Members. However, countries with a general population of less than three million may designate one representative only if they so desire. Countries with a general population between twenty million and forty million shall be entitled to name four National Members. Countries with a population exceeding forty million shall be entitled to name six National Members.

Where in any country there exists a substantial group of blind persons organized into associations and where there are blind persons occupying leading positions in agencies for the blind, adequate provision should be made for their representation in the national delegation.

Countries having non self-governing territories under their administration should, wherever possible, arrange for the views of such territories to be expressed by their National Members. In the event of a country being unable to agree on the nomination of any National Member or Members, the Executive Committee has power to invite such person or persons from within the country concerned as it considers best qualified to represent that country's interests. All National Members should hold or have held responsible positions in the direction or administration of recognized organizations of or for the blind.

Providing the terms of this article are complied with, any individual whose permanent residence and professional employment is located within a member country shall be eligible to serve as a National Member of that country's delegation regardless of the nationality of such individual.

Section 3—INTERNATIONAL MEMBERS. Any International Agency may be authorized by a Resolution of the General Assembly, approved by not less than two-thirds of the Members present and voting, to appoint one International Member of the Council. To qualify for such membership, the Agency shall be one which is exclusively international in scope and which promotes or coordinates a substantial programme of activities for the benefit of the blind or for the prevention of blindness. An International Agency which makes such an appointment shall pay to the Council an annual fee, the level of which shall be determined from time to time by the General Assembly.

Section 4—HONORARY LIFE MEMBERS. Any person proposed by the National Members of any country as having rendered outstanding services to the welfare of the blind or the prevention of blindness in any part of the world may, with the approval of the General Assembly, be elected an Honorary Life Member of the Council. The reasons for such election shall be fully stated at the time of election and shall satisfy such requirements as shall from time to time be laid down by the Executive Committee.

Section 5—ASSOCIATE MEMBERS. Upon payment of an annual membership fee, the level of which shall be determined from time to time by the General Assembly, any person or organization may be admitted by the Executive Committee to be an Associate Member of the Council and may be eligible to serve on its Committees other than the Executive Committee and the Finance Committee as non-voting

members. Individuals who are Associate Members may become National Members if so nominated by their respective countries. Associate Members shall be admitted only after consultation with the National Members of the country concerned.

Section 6—SPONSORING MEMBERS. Upon payment of an annual membership fee to be determined from time to time by the General Assembly, any individual, organization or concern may be admitted as a Sponsoring Member of the Council. A Sponsoring Member may be eligible to serve on Committees other than the Executive and Finance Committees, but only in a consultative Capacity.

ARTICLE IV

THE GENERAL ASSEMBLY

Section 1—COMPOSITION.

- a) the National, International and Honorary Life Members shall constitute the General Assembly;
- b) the Associate and Sponsoring Members may attend the General Assembly in a consultative capacity;
- c) observers, not being entitled to vote, may be invited to the General Assembly by the President of the Council.

Section 2—PROCEDURE. The General Assembly shall be convened by summons posted in Paris not less than two months before the date of meeting. In the event if any participating country being unable to send a representative entitled to vote at the meeting it may give its proxy or proxies to a representative of any other country. Any country which is entitled to send more than one National Member may authorize one of its representatives who attends to exercise a proxy on behalf of each representative who is absent. Notice of such proxy must be given in writing addressed to the Secretary General before the meeting of the General Assembly at which it will be exercised. The General Assembly shall normally meet at intervals of five years but may meet at greater or lesser intervals of time if it so desires.

Assembly meetings shall be ordinary or extraordinary. Extraordinary meetings of the Assembly may be convened by the President in exceptional circumstances. When attending meetings of the General Assembly, delegates will be responsible for their own travel and maintenance expenses.

Section 3—FUNCTION. The General Assembly shall determine the general policies to be adopted by the Council towards achieving its purposes.

- It shall consider all the recommendations submitted by the Executive Committee.
- It shall consider and receive the report of the Executive Committee on its work and the work of the committees.
- It shall consider and approve the Treasurer's report and the Budget of the Council.
- It shall determine the rate of the Membership fees.

- It shall elect the Executive Committee and the Officers.
- It shall adopt and amend the Constitution of the Council.
- It shall decide if it so desires on the dissolution of the Council.

Section 4—VOTING.

- a) Only National, International and Honorary Life Members are eligible to vote at meetings of the General Assembly, but Associate and Sponsoring Members may participate in the discussions in a consultative capacity.
- b) All questions shall be decided by the majority of those National, International and Honorary Life Members voting, whether present or by proxy, with the exception of amendments to the Constitution.
- c) Voting may be viva voce, by show of hands, or by ballot which shall be secret at elections when there is more than one candidate. Between meetings of the General Assembly questions which in the judgment of the Executive Committee lie outside the powers committed to it may be decided by letter ballot of all members of the Assembly.

ARTICLE V

THE EXECUTIVE COMMITTEE

Section 1—COMPOSITION. Until otherwise determined by the requisite majority of the General Assembly there shall be an Executive Committee elected to serve from the completion of one General Assembly until the conclusion of the next General Assembly.

The Executive Committee shall consist of seven (7) National Members from European countries, five (5) from North and Central America, five (5) from the East and South East Asia area, two (2) from South America, two (2) from the Middle East Area, one (1) from Oceania, three (3) from Africa, also two (2) representatives of the International Members and such other individuals up to a maximum of three (3) in number as may be elected by the General Assembly, also the Chairmen of all Consultative Committees, also the President, Immediate Past President, Treasurer and Secretary General who shall not hold territorial status during their respective terms of office and whose seats as National Members shall during such time be available to other persons elected to the General Assembly by the countries concerned. At any meeting of the Executive Committee a majority of its members shall constitute a quorum for the purpose of conducting business.

The representatives of member countries of each specified area shall be responsible for designating the individuals to represent them on the Executive Committee. All members of the Executive Committee shall be eligible for re-election.

Should a member of the Executive Committee serving as an elected representative of a regional area be prevented by good cause from attending any meeting of the Committee, the representatives of the member countries of that area shall be responsible for naming a substitute. A substitute member acting for a member who is unable to

attend any meeting shall have full speaking and voting rights during that meeting.

In the event of a vacancy occurring through the death, resignation or other cause of a member of the Executive Committee serving as an elected representative of a regional area, the national membership of that regional area shall be requested to elect a replacement to serve until the next General Assembly. In the event of a vacancy occurring through the death, resignation or other cause, of any other member, the Executive Committee shall have power to name a replacement, provided that the person so named shall be in good standing with his own association. Provided his election is agreeable to his national delegation a substitute shall enjoy exactly the same rights as those held by the person he replaces.

Section 2—FUNCTION. The Committee shall have power of decision and be directly responsible to the General Assembly for interpreting and carrying out in detail the general policies agreed upon by the Assembly for the administration, management and control of the property and affairs of the Council.

The Executive Committee shall have the widest powers to do and authorize any action not specifically reserved for the General Assembly. It shall supervise the administration of the Officers of the Council and has the right at all times to ask for an account of their actions.

Meetings of the Executive Committee of the World Council for the Welfare of the Blind shall be held concurrently with meetings of the General Assembly, with one further meeting being held at a time to be selected between the General Assembly meetings.

The travel and maintenance costs of members and the guides of blind members attending interim meetings of the Executive Committee shall be met in whole or in part for such members as may wish to apply.

The President shall have power, if he deems it necessary, to ask for decisions on specific matters by postal vote of all members of the Committee.

Between meetings of the General Assembly questions which in the judgement of the Executive Committee lie outside the powers committed to it may be decided by letter ballot of all National, International and Honorary Life Members.

Section 3—VOTING. All questions shall be decided by the vote of the majority of those voting.

ARTICLE VI

OFFICERS

Section 1—OFFICERS. Officers of the Council shall be elected by the General Assembly from among the National, International and Honorary Life Members. They shall serve from the conclusion of one General Assembly until the conclusion of the next.

They shall consist of the President, the Immediate Past President, five (5) Vice Presidents, the Treasurer and the Secretary General if he or she is serving in an honorary capacity. The President, the Immediate

Past President, the Treasurer and the Secretary General during their terms of office shall not hold territorial status and should they have held seats as National or International Members of the General Assembly, such seats shall during such time be available to other persons elected to the General Assembly by the countries or organizations concerned.

Section 2—The officers shall perform duties which are not the specific responsibility of the General Assembly or the Executive Committee.

- a) The officers shall:
 - take decisions on matters of internal administration;
 - carry out financial duties in accordance with decisions taken by the General Assembly and the Executive Committee;
 - appoint ad hoc committees and working groups to implement decisions taken by the General Assembly and the Executive Committee;
 - take urgent action in the period between the General Assembly and meetings of the Executive Committee.
- b) The President shall preside over meetings of the General Assembly and Executive Committee and shall represent the Organization in all civil actions. The President shall hold office for a period of one term and must thereafter be succeeded by a member of another national delegation or an International Member.
- c) In the absence of the President, one of the Vice Presidents shall preside at such meetings.
- d) The Treasurer and the Secretary General shall perform under the direction of the Executive Committee the duties properly appertaining to those offices.

ARTICLE VII

COMMITTEES

The International Council for the Education of the Visually Handicapped and any other international organization which may be designated for that purpose by the Assembly, shall have the status of a Consultative Committee of the World Council for the Welfare of the Blind. The Executive Committee may appoint a Finance Committee from its members to carry out specific financial duties, and any of these Committees as it deems necessary to carry out such duties as it may delegate to them. The Executive Committee is responsible for the selection of members of these committees. Committees other than the Finance Committee may, subject to the approval of the Executive Committee, co-opt any persons who may be of help to them in discharging the duties delegated to them.

ARTICLE VIII

FINANCE

Section 1—**FINANCIAL YEAR.** The financial year of the Council shall coincide with the calendar year.

Section 2—MEMBERSHIP FEES. Membership fees shall be at the rate to be determined from time to time by the General Assembly. Membership fees shall be payable on the first day of January of each year. Members whose annual fee has not been paid within six months after the beginning of the financial year may be declared by the Executive Committee to have forfeited membership. Savings made on the annual budget shall constitute a reserve fund which shall be banked and/or invested.

Section 3—EXPENSES. It shall be the duty of the Executive Committee at all times to keep the expenses of the Council strictly within the income thereof. If, by reason of deficit in the anticipated income or for any other cause, the income is insufficient for work in hand or contemplated, the Executive Committee shall have power to raise additional funds by any legitimate means after consulting and with the approval of the national membership of the country or countries in which such fund raising activity is to take place.

Section 4—RECORDS.

- a) The Executive Committee shall cause proper accounts to be kept. Account books and all Council documents shall be held at the office of the Council.
- b) The accounts of the Council shall be examined and audited each year by qualified auditors. A statement showing the financial position of the Council shall be published, and a copy sent to each National, International, Honorary Life and Sponsoring Member within six months after the end of the financial year.

ARTICLE IX AMENDMENTS

Section 1—This Constitution may be amended at any meeting of the General Assembly, or, if in the opinion of the Executive Committee urgent action is necessary, by a postal vote of all members of the General Assembly, provided always that not fewer than two-thirds of the members who vote on the matter are in favour of the proposed amendment or amendments. The Executive Committee shall place before the General Assembly or take a postal vote on any amendments proposed in writing by five or more National, International and Honorary Life Members of the Council. The exact text of the amendment or amendments proposed shall be placed before the General Assembly or members of the Council entitled to vote thereon. Any proposal for a constitutional amendment must be in the hands of the Secretary General three months before the opening of any Assembly.

Section 2—DISSOLUTION OF THE COUNCIL. If at any time a dissolution of the Council should prove necessary or desirable, proceedings therefor shall be taken in the same manner as provided in Section 1 of this Article, except that such proceedings may not be initiated upon the request of any five or more members of the Council, but only on the recommendation of the Executive Committee. In the event of dissolution, any funds or other assets owned by the Council shall be liquidated in accordance with recognized legal procedure.

BUSINESS SESSION 4

Thursday afternoon, August 15, 1974

REPORT OF THE RESOLUTIONS COMMITTEE

Mr. Bengt Lindqvist, Chairman of the Resolutions Committee, presented the following 15 Resolutions, which were unanimously adopted by the Council:

RESOLUTION 1

PREVENTION OF BLINDNESS

Affirming that it is a primary obligation of Governments and of the international community to prevent blindness and to conserve sight and that the incomparable faculty of sight should not be needlessly denied to any human being;

Aware that most of the world's blindness is preventable and that millions remain needlessly blind for lack of simple surgery;

Noting the accelerating increase in the prevalence of blindness in many countries of the developing world and the prediction that, unless decisive action is taken to break the link between blindness and population growth, the number of blind people in the world will double by the end of this century;

Recognizing that such increase in the number of blind people requiring education, rehabilitation and welfare will present to many countries a problem totally beyond the foreseeable resources of national systems of blind welfare;

Appreciating most cordially the increased priority and the greater resources which United Nations Agencies are now devoting to the prevention of blindness and admiring particularly in this connection the following:

The World Health Organizations programmes against trachoma, onchocerciasis, xerophthalmia and cataract; the onchocerciasis control programme in West Africa; the contribution which UNICEF is now making to the international control of xerophthalmia as a cause of child blindness.

Welcoming the increased emphasis being given in some national development plans to the prevention and cure of blindness and particularly the promotion of mass campaigns of cataract surgery and the protection of children against vitamin deficiency;

Commending the outstanding work in this field of the international members of the World Council and the increased medical activity of many of the Council's national constituents;

Noting the proposal of the World Health Organizations Study Group on the Prevention of Blindness (November 1972) that an improved

international mechanism should be established to expand international action and to mobilise resources;

Approving most emphatically the action taken by the leadership of the World Council and its international members in establishing a preparatory commission to make proposals for the creation of an appropriate new organization, the readiness of the international ophthalmic organizations to participate in this initiative and in the formation of the new body, and the outstanding decision of the International Association for the Prevention of Blindness to suspend its Constitution so that, suitably reconstituted and reorganized, that association might serve as the basis of a new multi-disciplinary organization to lead a world movement for the prevention of blindness;

The Assembly Resolves

1. That the World Council for the Welfare of the Blind shall participate wholeheartedly in the establishment of the new International Agency for the Prevention of Blindness and that, consistent with its primary concern for the rehabilitation and welfare of the blind, the Council shall give all the support in its power to the development of the work of the Agency and that the Executive Committee be empowered immediately to nominate representatives to serve on the Executive Board of the new Agency.
2. That the Council's national constituent organizations be urged to participate to the maximum of their constitutional power in national action for the prevention of blindness and, where a suitable national organization for the prevention of blindness does not already exist, to collaborate with ophthalmic interests in developing suitable multi-disciplinary organizations or committees to promote national action and to act as national constituents of the new Agency. Should it prove possible for the World Health Organization to accede to the request to dedicate World Health Day 1976 to the Prevention of Blindness, the Council's National Constituents are urged to make the maximum contribution to the success of that event.
3. That the Council's representatives on the Executive Board of the new international Agency for the prevention of blindness should ensure that it is the continuing policy of the Agency to establish and maintain the fullest collaboration with all appropriate agencies of the United Nations, that it should work towards the establishment of at least a minimum standard of ophthalmic service in every country and that the fullest communication should be maintained at all times between the Agency and the World Council, its International Members, Regional Committees and National Constituent Organizations.
4. That the World Health Organizations, UNICEF and the United Nations Agencies concerned be assured of the support of the World Council in their action against the world's major causes of blindness and that these Agencies be requested, both through their regular budgets and through the establishment of special funds, to devote

greater resources to the control and treatment of trachoma, onchocerciasis, xerophthalmia and cataract. In this connection particularly, the Council urges that every possible resource should be mobilized against xerophthalmia as a cause of child blindness including the mass distribution of vitamin concentrate to children in vulnerable areas, the development of the techniques of nutritional rehabilitation and the fortification of sugar, skimmed milk and other commodities which are provided in relief programmes and which offer an economical means of enriching the diet of children threatened with blindness from nutritional causes.

5. That simultaneously with the search for long term solutions to the causes of blindness, action should be intensified to apply the results of existing knowledge to the delivery of eye-health services in the developing countries including projects for the mass restoration of sight in countries where large numbers of people are needlessly blind for lack of surgical treatment.

RESOLUTION 2

EMPLOYMENT OPPORTUNITIES

Re-affirming, in accordance with the United Nations' declaration of Human Rights, that the blind people throughout the world have a right to work and;

That society consequently is under an obligation to guarantee this right to the blind;

Stating that blind persons given the right vocational rehabilitation are capable of self-support and of making a full contribution to the prosperity of their society and;

That rehabilitation not leading to gainful employment to blind people of working ages represents a halfway solution;

Recognizing that effective vocational rehabilitation is that which recognizes the aptitudes and interests of the individual concerned and is directed towards gainful employment in occupations intelligently selected;

Recognizing that the bulk of the blind in the developing countries of Asia, Africa and Latin America come from the rural areas;

The Assembly Resolves

1. That for both social and economical reasons, maximum resources be mobilized in every nation of the World for the employment of the blind.
2. That, consequently, an effective employment programme for the blind be included in the employment plans of every nation, and
3. That the resources for rehabilitation, training and employment are properly coordinated, as they are indissolubly linked together.
4. That governments in countries with a majority of rural blind, should give the opportunities in the distribution of land through programmes of agrarian reforms; should give liberal financial assistance for their resettlements; and should permit the use of normal community resources, including cooperatives.

The Assembly Recommends

- That the national employment programmes for the blind include services to the individual in vocational preparation, placement in occupations of their choice and follow-up.
2. That such programmes include resources for international co-operation and for the maximum utilization of work experiences made in other countries.
 3. That adequate funds and facilities be made available for the training and the resettlement of the rural blind.
 4. This Assembly, appreciating the progress made in countries having comprehensive legislation, for the education, rehabilitation of the visually handicapped, etc.; further recommends to all countries to consider this legislation covering all aspects of education, employment, social security, old age pension, and to remove all existing barriers, in the legislation of countries where visually handicapped are unable to exercise their rights to practice professions and occupations of their choosing, and the political rights of an ordinary citizen.

The Assembly Urges

That every effort be made by national agencies and organizations of and for the blind, by the World Council and by ILO to make the BLINDOC service an effective tool in the future exchange of experiences and ideas in the international field.

RESOLUTION 3

RESOLUTION ON AID TO DEVELOPING COUNTRIES

1. Appreciating that generous contribution which many of the Council's constituent organizations have made to the work of the Committee on Aid to developing countries and, welcoming the increasing effectiveness of the cooperation in this field with specialized agencies of the United Nations;
2. Noting, however, that the experience of the Aid Committee has revealed most strikingly the immensity of the need of the blind in the developing countries and the total inadequacy of the aid at present provided;
3. Recognizing that the responsibilities of donor countries are matched by, and to some extent depend upon the obligation of the recipient country to create effective national machinery through which aid can be channelled into professionally sound projects, avoiding duplication and ensuring prompt and accurate reports on the utilization of resources;

The Assembly Resolves

1. That the work of the Aid Committee be continued; that the Council's national constituents be requested to review, and if possible to extend the contribution which they do make to this programme either by providing resources or by assisting the committee to identify needs and evaluate projects.

2. That the fullest cooperation be maintained with United Nations agencies in expanding and co-ordinating aid and that—as the extent of United Nations and inter-governmental support depends entirely on the resources provided by the donor nations and the requests made by the recipient countries—the committee should make a major effort in collaboration with the Council's International members and Regional Committees to convince governments of the necessity to include projects for the blind in their aid allocations and in the aid requests.
3. That national organizations for the blind in the countries requiring aid should keep constantly under review the adequacy of the administration so that the donors can be assured that resources will be channelled without duplication into priority needs and into projects for which adequately trained staff is available; that in countries where national organizations do not yet exist, the Aid Committee in consultation with the Council's Regional Committees, should be prepared where appropriate to take the initiative in stimulating the creation of such organizations.
4. That, in addition to the funds and supplies which are most urgently needed there is an essential requirement for staff training. As this clearly is an area in which the Council's cooperation can be of particular value, the Aid Committee in cooperation where necessary with other standing Committees should lay emphasis on its continuing programme on the provision of training facilities either by arranging for travelling experts to augment the resources of developing countries or by the provision of training scholarships and courses in countries which have the necessary specialized experience.
5. That the Committee should, so far as it is practicable to do so, make contingency plans for the rapid mobilization of aid in disaster situations and should collaborate with the United Nations agencies and with international relief organizations in ensuring that the needs of the blind are recognized and provided for in emergency relief programmes and in the procedure manuals used by relief workers.

RESOLUTION 4

PENSIONS

Appreciating the fact that each visually handicapped person, as his sighted brethren, has the right to work and to earn his living and, recognizing the difficulties faced by visually handicapped people in finding gainful employment;

The Assembly Urges

That in the event of a visually handicapped person not being in a position to earn his living, the State should provide an unemployment subsidy or in some other way provide basic economical means for the individual.

RESOLUTION 5

UTILIZATION OF RESEARCH

Recognizing the efforts made by institutions like the IRIS, and other research groups to apply scientific knowledge and know-how in order to minimize the effects of blindness;

Realizing that research and development of aids is a continuing process; and while simple everyday aids can be developed within the system of work for the blind, more complex systems require the involvement of qualified research institutions;

That the risk capital for the development of complex aids, and the investment capital for everyday aids, are sine qua non for their eventual appearance in the consumer market;

That for some highly technical everyday aids there is a very small market, and that, consequently, a permanent production subsidy is the only viable means of assuring their availability;

That to decide whether technology can indeed make a difference we must make the choice to deliver its products to users, and assess their consequences;

The Assembly Resolves

1. That the best possible cooperation must be established between organizations of and for the blind and research institutions to make a joint attack on the problems of blindness.
2. That, as a minimum, the financial resources must be provided for the employment of a highly qualified technical officer within the WCWB, to help choose among options that research makes possible.

The Assembly Urges

1. That, Governments, national organizations, UNESCO, Regional groupings such as the EEC, set up and finance permanent research units devoted to investigating the needs and problems of the visually handicapped.
2. That the WCWB mobilizes all its efforts and directs all its energy to ensure the establishment of one great international research center before the beginning of the next Assembly in 1979.

RESOLUTION 6

1975—LOUIS BRAILLE MEMORIAL YEAR

Recognizing that the year 1975—the 150th anniversary of the braille system—marks a great occasion which is remembered with gratitude by the blind organizations of the world and by every blind person;

Remembering that in 1825, Louis Braille introduced his system of writing for the blind and that braille is one of the corner stones of modern blind welfare; that blind people today are able to acquire a comprehensive education, to take part in work and to make books part of their lives, due to Louis Braille's creation, and that even music and the difficult formulae of mathematics and chemistry can be translated

into this writing with its six dots, and in fact, that anything which can be communicated in written form can, in principle, be translated into braille;

The Assembly Resolves

That a Memorial Year to Louis Braille and his work be celebrated in 1975.

The following are some of the various activities which are recommended and should be given special emphasis in the Louis Braille Memorial Year:

1. The international braille jubilee should be made an opportunity for spreading the knowledge of braille even more actively among the blind and sighted of all countries, so that as many blind people as possible may gain access to the treasures of literature and education.
2. In this work, special efforts should be made to encourage the blind of the emerging nations and developing countries, which the more advanced countries may help by the production and provision of braille books.
3. In view of the reputation which UNESCO, UNICEF and numerous other international organizations have achieved, and the prominent part they play in assisting their members through information, advice and encouragement, the constituent bodies of the WCWB are recommended to establish contact with these organizations in order to develop and co-ordinate plans in connection with the Memorial Year.
4. The organizations of and for the blind should use every opportunity and means of publicity to inform the public of the importance of braille. Especially in schools, attention should be drawn to the personality of Louis Braille and to his achievement.
5. In honour of the Braille Year, the various institutions should each transcribe for wide distribution one important work into braille. This should be in uncontracted braille, and should be preceded by a special dedication.
6. Braille reading competitions should be arranged in the different countries, in co-operation with the mass media.
7. The national and international organizations should use the Memorial Year as an opportunity for initiating a variety of activities for informing the public of the needs and achievements of blind people. A deeper understanding of the work of and for the blind is not only a necessary condition for the continued and even more active integration of the blind, but also a means of achieving it.
8. An international conference will be organized in Paris in May 1975 on the position of the braille system as an indispensable reading media for the blind and weak-sighted.
9. The United Nations is recommended to issue a stamp, preferably symbolizing the braille dot system, in commemoration of the Louis Braille Memorial Year. All national delegations are requested to approach their Governments, in order to ensure that this be done.

RESOLUTION 7

MOBILIZATION OF COMMUNITY RESOURCES

Whereas, Blind people have the same rights, responsibilities and duties as other members of society;

Whereas, Society in general has yet to be motivated to accept blind people in their own right;

Whereas, It is recognized that in order to enforce a better social structure, the full support of the community is a necessity;

Whereas, Mobilizing community resources for the provision of services to the blind is a need in all countries of the world, especially among those nations that in their drive toward development do not yet have sufficient monetary resources to implement or extend services to all citizens who need them;

Whereas, Human promotion in the specific field of work for the blind requires professional leadership;

Whereas, The responsibility of mobilizing public opinion towards a more constructive and understanding attitude among members of society depends upon the ability to motivate and penetrate in the context of human behaviour; and;

Whereas, Public relations play a vital complimentary role in this complex task; therefore

The Assembly Resolves

1. To recommend that governments and organizations in work for the blind employ, wherever possible, the services of qualified professional people in the specific fields of human promotion and public relations, to open new avenues for the challenge that lies ahead of a better understanding of all aspects of blindness and its prevention.
2. To recognize the need to stimulate the use of all appropriate community resources for the benefit of the visually handicapped people as well as consumer participation.

RESOLUTION 8

ACTION FOR THE DEAF-BLIND

Whereas, Blindness plus deafness constitutes a unique communication handicap requiring very special methods to overcome;

Whereas, Rehabilitative and other services to deaf-blind persons lag far behind assistance rendered to either the blind or the deaf; and

Whereas, Deaf-blind adults have heretofore constituted a particularly neglected group among the deaf-blind; therefore

The Assembly Resolves

1. That the World Council for the Welfare of the Blind instructs and directs its committee on services to the deaf-blind to initiate and in every feasible way support a World Conference on Services to Deaf-Blind Adults to be held in 1977 at a place and in a manner deemed best by said Committee.

2. That this Conference be known as the Helen Keller World Conference on Services to Deaf-Blind Adults in commemoration of the centennial decade of the birth of Helen Keller and all enlightened persons, agencies and governments are herewith urged to grant every possible assistance to the success of this Conference.
3. That every effort be made to involve the deaf-blind themselves actively in the planning of this Conference and of future activities.

RESOLUTION 9

RELATIONSHIPS BETWEEN THE BLIND AND OTHER HANDICAPPED GROUPS OF SOCIETY

1. Relationships in the Field of Blindness

Recognizing the fact that in the welfare state the Governments have added responsibilities in promoting the rehabilitation of the visually handicapped and keenly aware of the role of the voluntary organizations in the field of rehabilitation of the visually handicapped;

The Assembly Recommends

That, whereas governments be made responsible for budgetary allocations in planning projects and programmes for the visually handicapped the actual implementation of these programmes may in the interest of efficiency and speed be left to voluntary organizations.

2. Relationship With Other Groups of Society

Recognizing the fact that the visually handicapped people form an integral part of society just as the handicapped and non-handicapped do and realizing the utmost need of harmonious and cooperative relationship between the handicapped and the non-handicapped and their relationship with governments and statutory and non-statutory authorities;

The Assembly Recommends

That steps be taken to promote proper understanding and a spirit of cooperation amongst all groupings with a view to bringing about the integration and assimilation of all concerned in the stream of social relationship.

Appreciating the need of organizations of and for the blind in the field of rehabilitation of the visually handicapped and recognizing the importance of the closest possible relationship and the fostering of good will and spirit of cooperation to realize the ultimate goal;

The Assembly Urges

That measures be initiated to bring about greater cooperation consultation and mutual exchange of views between organizations of and for the blind.

Accepting the fact that in the ultimate analysis it is the consumer that matters and realizing the significance of the role of the visually handicapped in directing their destiny;

The Assembly Recommends

The promotion of organizations of the blind and the increasing of the role of the visually handicapped people towards equality in directing the policy and the programmes of organizations for the blind.

RESOLUTION 10

ACCESS TO WRITTEN COMMUNICATION

Noting with gratification the intensive efforts made in the direction of perfecting reading-machines which would enable visually handicapped people to have an access to the whole range of printed material in ink print;

The Assembly Recommends

1. That care be exercised in bearing in mind the limitations of the range or tactile perception in being able to recognize characters in ink print.
2. That devices be produced which would enable both congenitally and adventitiously blind people to make full use of these devices.

Noting with satisfaction the use of auditory equipment in providing recreational and educational material for the visually handicapped in the form of talking books. A variety of equipment is being employed in the production of talking books which makes it difficult for international exchange of talking books.

The Assembly Recommends

That in the wider interest of promoting greatest possible dissemination of information and knowledge efforts be made to evolve a universal system of talking books.

The Assembly recognizes the difficulties involved in adopting a universal system of talking books as was the case in evolving a world braille code.

That, in order to facilitate the exchange of international information among the blind, efforts be made by the WCWB and national organizations and agencies to stimulate the learning and utilization of ESPERANTO.

RESOLUTION 11

STANDARDIZATION OF BRAILLE

Aware of the fundamental importance of literary and specialized braille texts to blind students and their great value to braille readers, and painfully conscious of the very limited variety and availability of such texts;

Despite the worthy efforts of braille printing organizations and transcribers in time, energy and finance, to make as wide a range of material as possible accessible to blind people; and deeply deploring and discouraging the apparent fragmentation of the braille system;

The Assembly Recommends

1. That all bodies strive untiringly for greater coordination towards unification of all braille systems. Special note should be taken of unification in relation to mathematics, music and language to facilitate international exchange of both material and personnel.
2. That no new systems should be constructed without thorough international investigation.

RESOLUTION 12

MOBILITY

Re-affirming the importance of Mobility Training as an essential part of the rehabilitation process for the blind;

Recalling that training in mobility has been limited mainly to training in the use of the long cane, the guide dog and now, fortunately to say—extended with the use of electronic aids and that there are clients who, for personal reasons including medical, social or psychological needs, would either use or benefit from use of one or more of these mobility aids;

Emphasizing the need for the blind to be fully integrated into the community to which they belong by providing opportunity for the use of various means of mobility;

The Assembly Recommends

1. That all countries establish services for mobility training;
2. That mobility training of a client should take into consideration the total needs of the client as an individual;
3. That, in the delivery of mobility aid services, foresight and initiative are called for on the part of the service-agency in order to meet the needs of the client in rural areas as distinct from those in urban areas where cues and other facilities may not necessarily be identical;
4. That plans be made to give a different type of mobility training to those who have useful residual vision as distinct from those who are totally blind;
5. That WCWB recognizes the need to stimulate the use of all appropriate community resources for the benefit of visually handicapped people, and recommends continuing study in the fields of utilization of residual vision and mobility particularly for the rural blind.

RESOLUTION 13

LOW VISION

Noting the fact that agreement has so far not been reached on the definition of blindness, and that partly because of this lack of agreement, people who have residual vision have been treated or encouraged to regard themselves as totally blind;

Believing that loss of vision need not mean total and complete loss of efficiency—a situation that makes the visually handicapped with residual vision regard themselves as lacking ability to function as visual

persons rather than as having visual ability to function in many situations;

Aware of the opportunities open to people with residual vision through visual restoration, optical aids and adaptive training in areas of employment, independent travel and mobility, and in reading in classroom situations and for leisure;

Regretting the unfortunate situation of school age children with residual vision who are refused admission into schools for the blind and who are also rejected in schools for the sighted, having too much sight or not enough sight to fit in either situation respectively;

The Assembly Recommends

1. That adults with residual vision should be identified as "those persons with visual impairment who have sufficient vision to see light or to take direction from it and to use it for functional purposes" according to Dr. Hoover.
2. That the establishment of low vision clinics be encouraged and appropriate measures be taken to provide such optical aids as well as other restorative measures as would enhance the continued use of residual vision.
3. That the visually impaired be treated and thought of as "seeing" persons rather than "blind" persons and that every opportunity and encouragement be given to using the remaining vision in every areas of functioning.
4. That, in the education and rehabilitation of people with residual vision, each individual client should be regarded as having individual characteristics and needs, including medical, vocational, occupational, psychological and functional capabilities, rather than as a group and that the effective implementation of this process calls for the involvement of multi-disciplinary but related professional personnel.

RESOLUTION 14

RECREATIONAL ACTIVITIES

Recognizing,

1. That the blind have the same recreational needs as others;
2. That a human being cannot contribute fully to the prosperity of his society without the stimulation from recreational activities appreciated by the individual; and
3. That the blind are left out from many recreational activities if special services are not provided;

The Assembly Recommends

1. That society and organizations of and for the blind should make a joint effort to promote cultural, recreational and sporting activities of special interest to the blind within the framework of those humanist goals which are part of the general cultural policy of society. This will be an important contribution towards integrating the blind into society.

2. That in order to develop the growing creative potential of the blind individual, suitable hobbies and meaningful pastimes should be encouraged.
3. That in the education and rehabilitation of the blind full attention should be paid to making their students familiar with the potential treasures of cultural activities and to encouraging them to use leisure purposefully.

RESOLUTION 15

ACKNOWLEDGMENT

The Assembly wishes most gratefully to record its cordial thanks to the President of Brazil, the Minister of Education and Culture—National Center of Special Education, the Governor and the Mayor of Sao Paulo and to the hospitable people of Brazil for the privilege of having our meetings in this great and friendly land;

To the President, Council, Officers and Staff of the Foundation of Books for the Blind in Brazil which, by the manner in which it has organized this Assembly, has added even further to the high esteem in which it is held in work for the blind throughout the World;

To the President and Members of the Organizing Committee and the Rondon Project of Sao Paulo for their great hospitality, and for the effectiveness of all the arrangements they have made on our behalf;

To the host of voluntary helpers, institutions, private forms and all others; and most specially to the Secretariat of the World Council and their collaborators and to the Organizing and Programme Committees. To them and to all the Council's friends in Brazil, the Assembly records true thanks for all that has been done to ensure the success of this Vth Assembly which will surely leave its mark in the history of work for the blind and will long live in the memory of all who participated in it as one of the most important and successful meetings hitherto held by the World Council.

SUPPLEMENTARY RESOLUTIONS

The three resolutions presented by Dr. Coockey-Gam and relating solely to the African Region, i.e.:

— to seek official relationship with the Organization of African Unity;

— to establish an African Fund of Mutual Aid and Solidarity;

— to call attention to the plight of blind people living in the Sahel;

The full text of the last resolution reading as follows:

“The Fifth World Assembly,

Deeply concerned with the situation of the blind living in the Sahel—a region suffering from eight years of drought;

Makes an urgent appeal to world conscience to come to the aid of the blind in these ten countries and recommends the setting up of a special Committee to aid blind victims of this African region.”

were unanimously approved by the General Assembly.

REPORT OF THE FINANCE COMMITTEE ON WCWB BUDGET FOR THE PERIOD 1975-1979

Mr. J. C. Colligan, Treasurer of the Council and Chairman of the Finance Committee, reminded the Assembly that the report for the past five years had already been adopted, together with important decisions, e.g. 1) to accept the generous offer from Sweden to bear the responsibility of the Secretariat as regards the assignment of the Secretary General; 2) not to increase the present rate of membership for fear it might adversely affect the retention and recruitment of members.

As no accurate figures were available, it had not been possible to hold a meeting of the Finance Committee. It had therefore been decided to submit only figures which were reasonably certain, i.e.:

The administrative expenses for 1975 were estimated at \$30,000. With an anticipated yearly increase of approximately 12½%—to allow for inflation—and a reserve of \$15,000 to be allocated to the Consultative and standing committees, plus \$5,000 for travel expenses of the Members of the Secretariat, the Finance Committee were budgeting for a total expenditure of \$203,000—for the five years.

The anticipated income from subscriptions and donations for the Quinquennium was estimated at \$130,000, leaving a shortfall of \$73,000 without having made any provision for the cost of meetings of the Executive, Standing and Consultative Committees, General Assembly proceedings, contact and development work, or unforeseen contingencies.

The Finance Committee was of the opinion that a realistic figure for the increase in annual income needed would be in the range of \$40,000 to \$50,000.

So great was the realization of the nature of the emergency and so strong was the determination of delegates that our organization must not be allowed to fail for lack of support that there was an immediate response from many of the Delegations present. Led by the President, Dr. Hedkvist, on behalf of the Scandinavian countries, the following amounts, additional to the normal annual membership dues, were pledged for each of the 5 years commencing 1st January 1975:

	\$
Sweden	1,000
Norway	1,000
Denmark	1,000
Finland	1,000
Saudi Arabia	10,000
United Kingdom	2,000
South Africa	1,000
Cleveland Society for the Blind, USA	500
Spanish International Trust	600
Canada	1,000
Netherlands	1,000
France	1,000
German Federal Republic	1,000
	<u>22,100</u>

In addition, the representatives of the United States, of AFB-AFOB, the Soviet Union, New Zealand, Spain and Nigeria, all promised to make recommendations for further support from their organization immediately upon their return home.

Not all of the generous help of which we had been assured would take the form of direct cash grants. For example, with the appointment of the new Honorary Secretary General from 1st January 1975, De Blindas Forening would be bearing a considerable proportion of the cost of the Secretary General's office in Stockholm; the Amitié des Aveugles de France provided us with accommodation for our Paris Headquarters at a purely token rental; the All-Russia Society for the Blind had assumed responsibility for the President's Office in Moscow; and the Royal National Institute for the Blind maintained the Treasurer's Office in London.

The Treasurer appealed to the Assembly to do everything possible to secure the maximum support so that the maintenance, development and expansion of the work of WCW could be achieved during the next five years.

Adoption of the report was then moved by Mr. Colligan, seconded by Sheik Al-Ghanim and AGREED unanimously.

ELECTION OF HONORARY LIFE MEMBERS

Mr. Eric T. Boulter, Chairman of the Nominations Committee, submitted to the approval of the Assembly, the following proposal: first the Executive Committee recommended unanimously that the President, who had served us so well during his mandate, Dr. Charles Hedkvist, a leader of the blind in Scandinavia and in the whole world should become an Honorary Life Member: second, the Executive Committee recommended unanimously that Mr. John C. Colligan, Treasurer of the World Council, who had been a leader in work for the blind in the United Kingdom for 33 years, before his retirement, and who was now devoting all his time to the World Council, should also receive this homage. Mrs. Queenie H. C. Captain, who played a prominent role in the work of the National Association for the Blind, India and Mr. Ignacio Satrustegui, the recently retired Director of the National Organization for the Blind, Spain (ONCE), were also proposed to be appointed Honorary Life Members of the Council.

Dr. Cooley-Gam, supported by Mr. Iwahashi, presented a motion for the approval of these recommendations.

Put to the vote, the motion was unanimously carried with acclamation.

As the members wished to show appreciation of the work Mrs. Cowburn had done as Secretary General, Mr. Boulter recommended that she be elected a Life Associate Member of the World Council on her retirement.

This proposal was seconded by Sheik Al-Ghanim and unanimously approved.

BUSINESS SESSION 5

Friday morning, August 16, 1974

REPORT OF THE NOMINATIONS COMMITTEE

Mr. Eric T. Boulter, Chairman of the Nominations Committee, proposed the following nominations, to which the Council AGREED unanimously:

(a) **Members of the Executive Committee Nominated by their Respective Regions:**

Europe

General A. Ammannato
Mr. Eric T. Boulter
Mr. Eero Häkkinen
Mr. Wilhelm Marhauer
Mr. André Nicolle
Dr. Helmut Pielasch

North America and Oceania

Mr. M. Robert Barnett
Mr. Ross C. Purse
Mr. Floyd Qualls
Mrs. Ferne K. Roberts
Mr. Cyril W. White

Latin America

Mrs. Dorina de Gouvêa Nowill
Mr. Hernando Pradilla-Cobos
Mrs. Elisa M. de Stahl

Asia

Mr. Suresh C. Ahuja
Capt. H. J. M. Desai
Sir Senarath Gunawardena
Mr. Hideyuki Iwahashi
Miss Winnie Ng

Middle East

Sheik Abdullah M.
Al-Ghanim
Prof. Abdol Aziz Vahedi

Africa

Mr. Pape Alassane Fall
Mr. Ismaïla Konate
Mr. Mohammed Rajhi

(b) **Members of the Executive Committee Nominated by International Members of the Council**

Mr. Harold G. Roberts, American Foundation for Overseas Blind, Inc.
Sir John F. Wilson, CBE, Royal Commonwealth Society for the Blind

(c) **Members at Large on the Executive Committee**

Dr. Manuel Rodriguez Cardenas
Dr. J. W. Cookey-Gam
Mr. Achille Dyckmans

(d) **Chairman of Consultative Committee**

Dr. Jeanne Kenmore, International Council for the Education of the Visually Handicapped

OFFICERS OF THE COUNCIL

As there were two candidates for the office of President of the World Council, Mr. Boris V. Zimin, presented by the Nominations Committee and Mrs. Dorina de Gouvêa Nowill, nominated from the floor, the Assembly proceeded to the election by secret ballot. There were 62 votes for Mr. Zimin, 59 votes for Mrs. de Gouvêa Nowill and 1 vote null and void.

Mr. Boris V. Zimin was declared newly elected President.

Mr. Boulter then proposed the following nominations, to which the Council agreed unanimously:

Vice Presidents: Mrs. Dorina de Gouvêa Nowill
Sheik A. Al-Ghanim
Mr. Eero Häkkinen
Mr. Hideyuki Iwahashi
Mr. Mohammed Rajhi

Honorary Treasurer: Mr. J. C. Colligan

The election of the Immediate Past President and of the Honorary Secretary General, who are members of the Executive Committee in accordance with the Constitution, was approved unanimously.

CLOSING SESSION

Speech of the retiring President Dr. Charles Hedkvist

Ladies and Gentlemen, the moment has come to close this General Assembly. As we have a time problem, I will talk briefly in my farewell speech. I can do that, because, thanks to the amendment you have approved to the Statutes, you have allowed me to continue to work with the new Officers in my capacity as past President.

When I assumed the Presidency of the World Council in 1969, I said that it was for me an honor but, at the same time, a cause for anxiety. I still feel very honored for having been your President, but I can say that my doubts disappeared gradually when I saw that there were so many people cooperating with me in the Executive Committee and in the different delegations.

Before this General Assembly I was once again anxious and this was due to inflation problems and to the requirements of the World Council. Our financial resources were low. Then, the future looked more promising. Allow me to express my thanks to my colleagues from Scandinavia who took the first initiative, and also to thank all those who tried to solve our financial problems, because this shows that there exists a belief in the necessity of international cooperation, and also in the continuation and development of the World Council for the Welfare of the Blind. As its President for the last five years, I am sure that the World Council is going to progress in work for the blind throughout the whole world. All of you who are leaders of organizations know that a leader must be prepared to accept criticism and, at the same time, to assume responsibilities for the conduct of the affairs of his organization, but the people attached to this organization are the ones who really do the work. I feel much indebted to all those who helped me during those five years. First, I want to express my thanks to the heads of WCWB delegations as representatives of the national delegations and also to the delegates of our international members. I am deeply grateful to the members of the Executive Committee of the World Council for their constant support. And last but not least I wish to extend my warm thanks to our Secretary General Mrs. Marcelle Cowburn and to Mrs. Gohier and Mrs. Durand, who is absent, because if they had not done the work in our Paris office, I do not believe I would have had so much success during my term of office.

I also want to extend my thanks to my friends, the new Honorary Secretary General, Anders Arnör, because he did a lot of my work in Stockholm, and Mrs. Annie Dvoretzki, whom many have known in Moscow because it was she who translated my Swedish into the English language. I have been deeply moved by the friendship, the kindness, the support and the cooperation which I found during those five years.

I believe that my work, as President, has been a fascinating job, and

it is thanks to your help that it became fascinating work. My thanks to you all.

It is now for me a great privilege to turn over the Chairmanship to the newly elected President of the World Council for the Welfare of the Blind. Mr. Boris Zimin, you have the seat, the microphone, the leadership and the responsibility.

— UNDER APPLAUSE MR. BORIS ZIMIN ASSUMES THE CHAIRMANSHIP

Speech of the newly installed President, Mr. Boris Zimin

Ladies and Gentlemen: I hope that you will realize that I am very thankful to all of you.

It is difficult for me to find the right words to express all my feelings and my gratitude, but I will begin by congratulating the new vice-Chairmen. You may be sure that I understood the situation of today's election perfectly well, simply basing myself on the wonderful personality of Mrs. Dorina de Gouvêa Nowill.

I hope and believe that we will cooperate together and that this cooperation will benefit all the blind in the world.

Ladies and Gentlemen, I understand that this is the greatest honor—to be the President, leader of such an organization as the World Council for the Welfare of the Blind. I thank you for the honor that was bestowed on me. You expect of me not only to hold the very honorable position of President, but also to be a very active one. I promise that I will do all my best to this end. I will use all the experience of my life for the benefit of the blind in the whole world.

It will not be an easy task to succeed Dr. Hedkvist, whom we all hold in high regard. I hope that he will cooperate not only with me, but with all the members of the World Council and also hope that all the members of the Executive will assist me in my work so that our great organization may continue to grow.

Our General Assembly was very active; we resolve many problems and in the future we shall have still more to solve. I would compare this work of ours to a very large river, that needs the contribution of the small rivers—the members of the World Council—to achieve its purpose.

Perhaps one of the most important decisions we took this week was the approval of a new agency for the prevention of blindness.

Another important task is the aid to be given to the developing countries, each one of which has its own peculiarities. It will be necessary to assist these countries in the various fields: prevention and treatment of blindness, rehabilitation, training, and also to help them solve other minor problems which may appear.

We heard with attention the report delivered by the international members of our Organization and we feel a great responsibility towards all the blind people in each country, in each part of the world. Therefore, we must join with them and combine our efforts.

The problems of the blind cannot be resolved by the blind people alone. They need all the aid available from the different organizations—voluntary and governmental—and from scientific institutions. At the same time we all know that these problems cannot be resolved without the active participation of the blind themselves.

This General Assembly was the beginning of an undertaking that shall be developed during the next quinquennium and I hope that in five years time we shall present to our next General Assembly the encouraging results of our mutual aid and fruitful cooperation.

To conclude I would like, once more, to extend my thanks to all of you for the great honour that was conferred on me and also promise you, again, that I will do the utmost to fulfil my mission as best as possible. I need your cooperation, that of all the members of the Executive Committee. I look forward to the help of my friend Charles Hedkvist. Everybody knows his experience. I feel certain that our Secretary General will also assist me in my work.

Thank you in advance, my dear friends, for your collaboration and I wish every success to every national organization.

I now give the floor to our new Vice-Chairman, Mrs. Dorina de Gouvêa Nowill.

Speech by Mrs. Dorina de Gouvea Nowill, Vice-President, WCWB

Mr. Chairman, Ladies and Gentlemen.

Dear friends, I am not using this microphone as Vice-President of the World Council, but still as the Chairman of the Organizing Committee of the Fifth General Assembly of the World Council for the Welfare of the Blind.

I will try to be brief, because were I to express my thanks to all those who helped me to organize this Assembly, I would spend hours and hours at this microphone. I would like to express my gratitude to the Executive body, Chairman, Secretary, Treasurer, and to the four co-ordinators of the Organization Committee, whose names I will not mention because all of you know them and you met them every day.

I offer my thanks to the Federal, State and Municipal Brazilian Government, for the help that they gave us.

I would also like to express my gratitude to the National Organization of the Blind in Spain, for the excellent aid they gave for the organization of this Assembly.

I am thankful to the Brazilian youth who learned to deal with blind people during these days and for whom I have received all the thanks of the participants: The Rondon Project. With your permission, I would like to say that two of my children work with the Rondon Project.

I would also like to thank all the volunteers, young and adults, and the Brazilian Foundation for the Book for the Blind who during all these years helped me so much. To the Brazilian Delegation I wish to extend my thanks for all they have done in their studies for the promotion of this Assembly.

Before leaving you and before saying, with all my heart, good-bye to all the Brazilians and to all of you, I would like to say only one word

about this morning: In my opinion it was a demonstration of the growth of the World Council for the Welfare of the Blind and I hope that all the blind people in the world will understand that from now on they may vote, because they know how to follow democratic procedures. This was a demonstration for all the world to see of what we, blind people, are able to do.

Now, with all my heart, I would like to say, in the four languages that have been spoken these days, the only ones I know, I would like to say how much I love you all and how proud we, the Brazilians, are for having been able to receive you.

Brazil carried its great mission of work for the blind, that is, to hold the Fifth Assembly of the World Council in this country. Thank you. Come again, my friends. Our hearts will always be with you. Thank you.

President Boris Zimin:

Ladies and Gentlemen: Even though our General Assembly has approved a motion of gratitude to Brazil, the Brazilian Government and to the Brazilian Foundation for the Book for the Blind, I would like, in the name of all, to extend my thanks for all her hospitality, to Mrs. Nowill.

I would like to say to her: many many thanks in the name of all the delegates and of this Assembly. We worked hard during these ten days and all the time we felt the attention that our Brazilian friends were giving us. That is why, at any hour we needed something, we had it, or when we wanted to go somewhere, we did go. I can then say that this General Assembly was organized in a marvellous manner and this is the reason why I am immensely grateful to the Organizing Committee and to its Chairman, Mrs. Dorina de Gouvêa Nowill.

Thank you once more. The session is closed.

I also declare closed the Fifth General Assembly of the World Council for the Welfare of the Blind, wishing to all the representatives of the visiting countries, "bon voyage" and a great success in their work. Thank you.

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